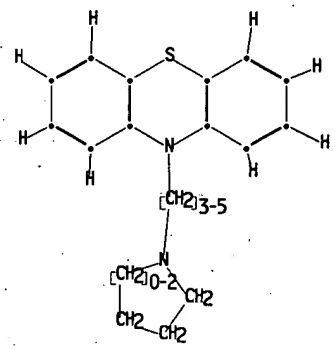
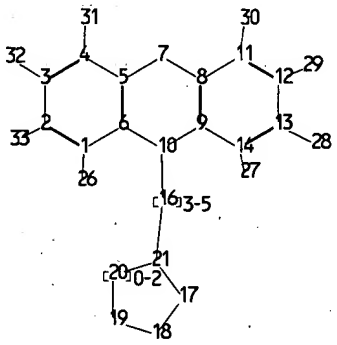
L Number	Hits	Search Text	DB	Time stamp
1	5602	("514/183,224.8,225.2,225.8,225.5,226.2,411,311,299,313,").CCLS	USPAT	2003/05/23 10:25
2	486	("544/14,35,41,44").CCLS	USPAT	2003/05/23 10:30
3	506	("548/566,579").CCLS	USPAT	2003/05/23 10:30
4	1260	(546/152,159").CCLS	USPAT	2003/05/23 10:30
5	0	(("514/183,224.8,225.2,225.8,225.5,226.2,411,311,299,313,").CCLS) and (("544/14,35,41,44").CCLS) and (("548/566,579").CCLS) and ((546/152,159").CCLS)	USPAT	2003/05/23 10:31

C:\STNEXP4\QUERIES\09849400 (patel).str

narrow search around the species of Claim 32.





chain nodes :
16 26 27 28 29 30 31 32 33
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 17 18 19 20 21
chain bonds :
1-26 2-33 3-32 4-31 10-16 11-30 12-29 13-28 14-27 16-21
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
17-18 17-21 18-19 19-20 20-21
exact/norm bonds :
5-7 6-10 7-8 9-10
exact bonds :
1-26 2-33 3-32 4-31 10-16 11-30 12-29 13-28 14-27 16-21 17-18 17-21 18-19
19-20 20-21
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14
isolated ring systems :
containing 1 : 17 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 26:CLASS
27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS

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L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1                STR
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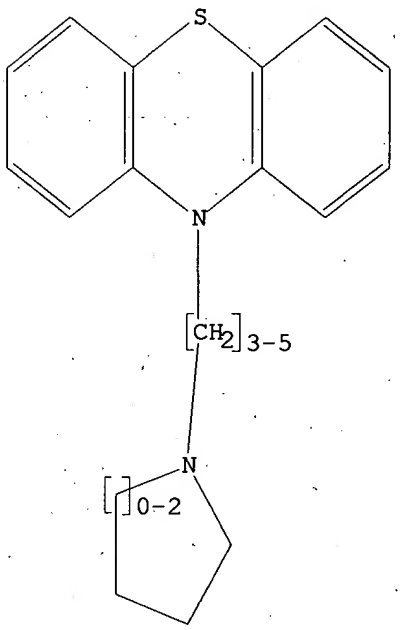


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Structure attributes must be viewed using STN Express query preparation.


=> s l1 sss sam
SAMPLE SEARCH INITIATED 15:57:50 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    125 TO ITERATE

100.0% PROCESSED     125 ITERATIONS                          38 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          1830 TO     3170
PROJECTED ANSWERS:              391 TO     1129

L2          38 SEA SSS SAM L1

=>
Uploading 09849400 (patel).str

L3      STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3                STR
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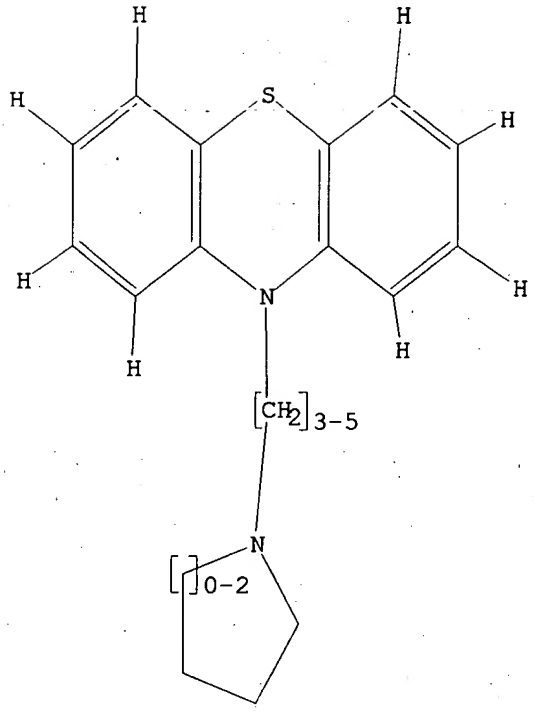

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 15:59:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 125 TO ITERATE

100.0% PROCESSED 125 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

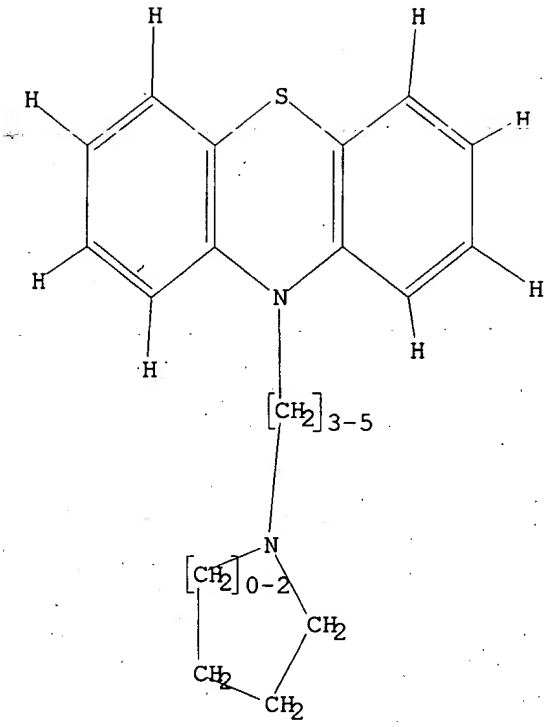
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1830 TO 3170
PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

=>
Uploading 09849400 (patel).str

L5 STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
L5 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED -     305 TO ITERATE

100.0% PROCESSED     305 ITERATIONS                                 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          5053 TO     7147
PROJECTED ANSWERS:                1 TO       80

L6             1 SEA SSS SAM L5

=> s l5 sss ful
FULL SEARCH INITIATED 16:00:00 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    5799 TO ITERATE

100.0% PROCESSED    5799 ITERATIONS                                17 ANSWERS
SEARCH TIME: 00.00.01

L7            17 SEA SSS FUL L5

=> s l7
L8            38 L7
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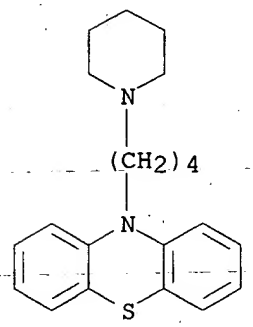
=> d l8 1-38 bib,ab,hitstr

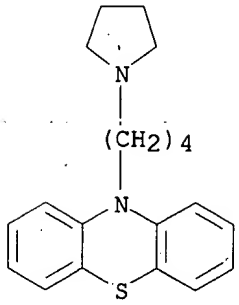
L8 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 2003:118638 CAPLUS
DN 138:153540
TI Preparation of aminobutylphenothiazines, -iminodibenzyls, and related compounds as chemosensitizing agents against chloroquine resistant plasmodium falciparum
IN Lin, Ai J.; Guan, Jian; Kyle, Dennis E.; Milhous, Wilbur K.
PA USA
SO U.S. Pat. Appl. Publ., 27 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003032801	A1	20030213	US 2001-849400	20010507 ← Applicant's
PRAI US 2001-849400		20010507		

OS MARPAT 138:153540
AB Title compds. [I; X = (substituted) alkyl, heteroatom; n = 4-6; Y = (substituted) alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, NR1R2; R1, R2 = H, heteroatom, (substituted) alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl; each ring structure may be substituted], were prepd. Thus, 10-(4-pyrrolidin-1-ylbutyl)phenothiazine (general prepn. given) at 50 ng/mL completely restored the sensitivity of TM91C235 cells to chloroquine.
IT **246041-11-2P**, 10-(4-Piperidin-1-ylbutyl)phenothiazine
443309-35-1P, 10-(4-Pyrrolidin-1-ylbutyl)phenothiazine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compd.; prepn. of aminobutylphenothiazines, -iminodibenzyls, and related compds. as chemosensitizing agents against chloroquine resistant plasmodium falciparum)
RN 246041-11-2 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)



RN 443309-35-1 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)



Claimed compd.

L8 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 2002:868744 CAPLUS
DN 137:370096
TI Tricyclic N-(aminoalkyl)-substituted phenothiazines, iminodibenzyls, iminostilbenes, and diphenylamines, active as chemosensitizing agents against chloroquine-resistant Plasmodium falciparum, and methods of making and using thereof
IN Lin, Ai J.; Guan, Jian; Kyle, Dennis E.; Milhous, Wilbur K.
PA United States Army Medical Research and Material Command, USA
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

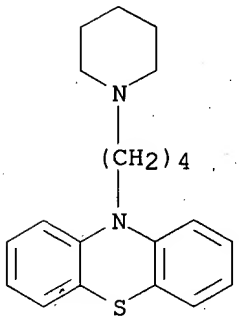
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002089810	A1	20021114	WO 2001-US14574	20010507

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

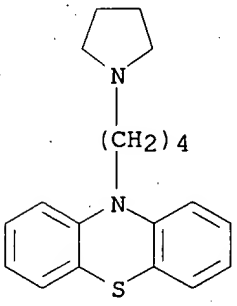
PRAI WO 2001-US14574 20010507
OS MARPAT 137:370096
AB Title compds. I and pharmaceutically acceptable salts or prodrugs thereof are disclosed [wherein: X is a substituted or unsubstituted alkyl, a heteroatom, or 2 H atoms; n is 4, 5, or 6; Y is a substituted or unsubstituted alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, or NR1R2; wherein R1 and R2 are each independently, H, a heteroatom, substituted or unsubstituted alkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; and wherein each ring structure is independently substituted or unsubstituted]. Also disclosed are chemosensitizing agents and methods of modulating, attenuating, reversing, or affecting a cell's or organism's resistance to a given drug such as an antimalarial. In particular, a group of compds. I were prepd. and shown to have improved anti-MDR (multidrug resistance) efficacy and reduced side effects (no data) in restoration of the clin. efficacy of antimalarials including mefloquine and chloroquine. Four of the compds. also showed moderate intrinsic antimalarial activity in the absence of chloroquine or mefloquine. Structure-activity relationships, e.g., regarding alkyl chain length, ring rigidity, and amino terminal size, are discussed. For instance, 4-chloro-1-butanol was converted to the THP ether (99%) and then used to N-alkylate phenothiazine (46%), followed by deprotection (100%), conversion of the resultant alc. to a chloride with SOCl2 (62%), and amination of the chloride (34%) to give the pyrrolidine deriv. II. At 50 ng/mL in vitro, II completely restored the sensitivity of TM91C235 cells [a highly drug-resistant malaria isolate from Thailand] to chloroquine, giving 99% cell growth suppression/inhibition. When tested on a different clone of Plasmodium falciparum, II gave superior MDR-reversing activity, with a fractional inhibitory concn. (FIC) of 0.21, using a 1:1 combination of chloroquine and II.
IT **246041-11-2P**, 10-[4-(Piperidin-1-yl)butyl]phenothiazine
443309-35-1P, 10-[4-(Pyrrolidin-1-yl)butyl]phenothiazine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of phenothiazines, iminodibenzyls, iminostilbenes, and diphenylamines as antimalarial sensitizing agents for treatment of multidrug-resistant malaria with chloroquine and mefloquine)

RN 246041-11-2 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)

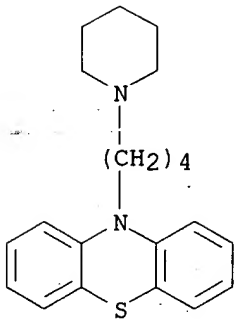


RN 443309-35-1 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)

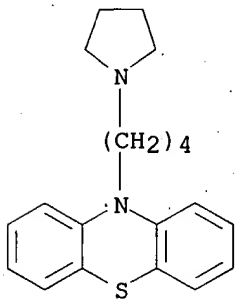


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 2002:372411 CAPLUS
DN 137:109247
TI Design, Synthesis, and Evaluation of New Chemosensitizers in Multi-Drug-Resistant Plasmodium falciparum
AU Guan, Jian; Kyle, Dennis E.; Gerena, Lucia; Zhang, Quan; Milhous, Wilbur K.; Lin, Ai J.
CS Division of Experimental Therapeutics, Walter Reed Army Institute of Research, Silver Spring, MD, 20910, USA
SO Journal of Medicinal Chemistry (2002), 45(13), 2741-2748
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:109247
AB A series of new chemosensitizers (modulators) against chloroquine-resistant Plasmodium falciparum were designed and synthesized in an attempt to prep. modulators with enhancing drug-resistant reversing efficacy and minimal side effects. Phenothiazine, iminodibenzyl, and iminostilbene arom. amine ring systems I (X = S, CH2CH2, CH:CH; n = 4-6; R1, R2 = Me, Et, PhCH2; R1R2N = pyrrolinyl) and diphenylamines II (R1 = R2 = Et, R1R2N = pyrrolinyl) were examd. Various tertiary amino groups including either noncyclic or cyclic aliph. amines were introduced to explore the steric tolerance at the end of the side chain. The new compds. showed better drug-resistant reversing activity in chloroquine-resistant than in mefloquine-resistant cell lines and were generally more effective against chloroquine-resistant P. falciparum isolates from Southeast Asian (W2 and TM91C235) than those from South America (PC49 and RCS). Structure-activity relationship studies revealed that elongation of the alkyl side chain of the mol. retained the chemosensitizing activity, and analogs with four-carbon side chains showed superior activity. Furthermore, new modulators with phenothiazine ring exhibited the best chemosensitizing activity among the four different ring systems examd. Terminal amino function has limited steric tolerance as evidenced by the dramatic lose of the modulating activity, when the size of substituent at the amino group increases. The fractional inhibitory concn. (FIC) index of the best new modulator I (X = S, n = 4, R1R2N = pyrrolinyl) is 0.21, which is superior to that of verapamil (0.51), one of the best-known multi-drug-resistant reversing agents. Some of the analogs displayed moderate intrinsic in vitro antimalarial activity against a W-2 clone of P. falciparum.
IT **246041-11-2P 443309-35-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of antimalarial drug chemosensitizing aminoalkyl phenothiazines, benzazepines, and diphenylamines)
RN 246041-11-2 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)

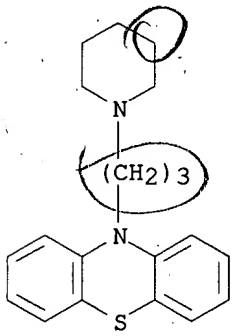


RN 443309-35-1 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-pyrrolidinyl)butyl]- (9CI) (CA INDEX NAME)

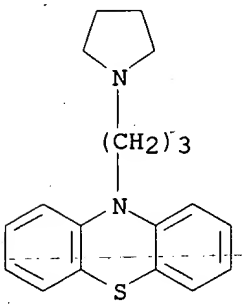


RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

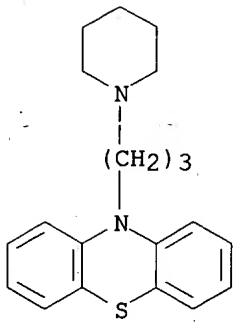
L8 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1984:454884 CAPLUS
DN 101:54884
TI Tests of a piperidino mask for the protection of functionalized carbon sites in multistep syntheses
AU Olofson, R. A.; Abbott, Duain E.
CS Dep. Chem., Pennsylvania State Univ., University Park, PA, 16802, USA
SO Journal of Organic Chemistry (1984), 49(15), 2795-9
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
OS CASREACT 101:54884
AB Primary alkyl chlorides, e.g., I (R = Cl) were isolated in excellent yield after treatment of the appropriate N-alkylpiperidines, e.g., I (R = 1-piperidinyl) with ClCO2CHClMe. A variety of alkylpiperidines, including systems with other sensitive functionalities, were converted to the resp. chlorides in yields varying from 90 to 97%. The potential significance of this process in drug congener prepn. and in total synthesis was outlined. Similar fragmentations of N-sec-alkylpiperidines were described.
IT **3733-38-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(dealkylation of, with chloroethyl chloroformate, alkyl chloride by)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1971:433427 CAPLUS
DN 75:33427
TI Metabolism in vitro of phenothiazine drugs
AU Hewick, D. S.; Beckett, A. H.
CS Dep. Pharmacol. Ther., Univ. Dundee, Dundee, UK
SO Biochemical Journal (1971), 122(5), 59p-60p
CODEN: BIJOAK; ISSN: 0264-6021
DT Journal
LA English
AB Chlorpromazine, trimeprazine, prochlorperazine, trifluoperazine, and 13 other phenothiazines underwent sulfoxidation and aromatic hydroxylation by the liver microsomal fraction from male rats. Compds. contg. N-Me or N-Et groups were N-dealkylated. Demethylation increased with increases in the length of the side chain but decreased on introducing electroneg. substituents into position 2 of the phenothiazine ring. N-Demethylation was almost doubled by the introduction of a branched-chain Me group .beta. to the side-chain N atom. Like chlorpromazine, all compds. with N,N-dimethylaminoalkyl side chains (except trimeprazine) were extensively N-oxidized. Trimeprazine was negligibly N-oxidized. The N,N-di-Et compds., unlike their Me analogs, were not N-oxidized. Incorporation of the side-chain N into a pyrrolidine or piperidine ring also virtually abolished N-oxidn. However, trifluoperazine and prochlorperazine were N-oxidized as extensively as chlorpromazine, the N-oxidn. of the perazines probably occurring at the N-methyl N atom.
IT **3733-37-7 3733-38-8**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metabolism of, by liver microsomes)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

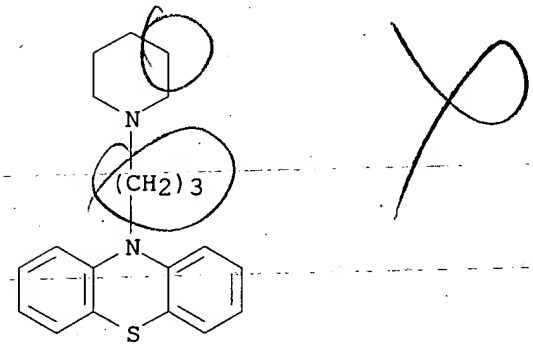


L8 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1966:429488 CAPLUS
DN 65:29488
OREF 65:5469a-d
TI Substituted phenothiazines
PA Sandoz Ltd.
SO 7 pp.
DT Patent
LA Unavailable
FAN.CNT 1

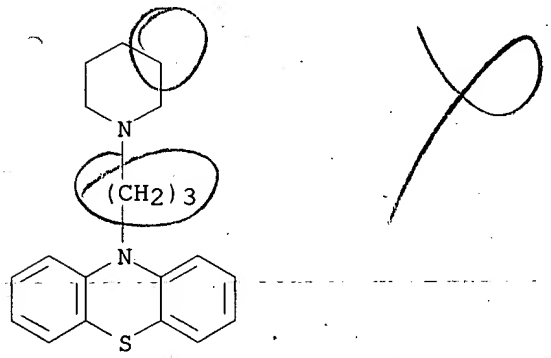
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 65010035		19660207	NL	
PRAI	CH		19640805		

AB The title compds. I, useful as neuroleptic and antidepressive agents, are prepd. by known methods. Thus, a mixt. of 50 g. 3-methylthio-10-(3-chloropropyl)phenothiazine, 19.7 g. 4-hydroxypiperidine (II), 32.2 g. finely powd. K2CO3, and 250 ml. xylene is refluxed 20 hrs. with stirring to yield 3-methylthio-10-[3-(4- hydroxy-1-piperidyl)propyl]phenothiazine (III), b0.01 240-2.degree., m. 151-3.degree. (acetone). To a soln. of 10 g. III in 140 ml. abs. EtOH is added 1 equiv. alc. HCl, and the soln. cooled to 0.degree.. To this soln. is added in 2 hrs. dropwise with stirring a soln. of 2.74 g. 35.4% H2O2 in 10 ml. abs. EtOH. After another hr. at 0.degree., the mixt. is worked up to yield 3-methylsulfinyl-10-[3-(4-hydroxy-1-piperidyl)propyl] phenothiazine benzenesulfonate-EtOH (IV), m. 105-7.degree. (abs. EtOH). A mixt. of 30 g. 3-methylsulfinylphenothiazine, 537 g. finely powd. NaNH2, and 200 ml. dry PhMe is refluxed 1 hr. with stirring. To this boiling mixt. is added dropwise in 30 min. a soln. of 22.6 g. 1-chloro-3-bromopropane in 25 ml. dry PhMe, and the mixt. refluxed 3 hrs. to yield crude 3-methylsulfinyl-10-(3-chloropropyl)phenothiazine, which is converted with II into IV as described for III.

IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)- (derivs.)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1964:457077 CAPLUS
DN 61:57077
OREF 61:9924f-h,9925a
TI Intensity and duration of central nervous action of 2-acetylated phenothiazines and phenoxazines
AU Ribbentrop, A.; Schaumann, W.
CS C. F. Boehringer Soehne G.m.b.H., Mannheim-Waldorf, Germany
SO Archives Internationales de Pharmacodynamie et de Therapie (1964), 149(3-4), 374-84
CODEN: AIPTAK; ISSN: 0003-9780
DT Journal
LA German
AB Pharmacol. properties of phenothiazines and phenoxazines with substituted and unsubstituted 10-piperidinopropyl side chains and their 2-acetylated derivs. (I-IV) (Stach, et al., CA 59, 8750a) were compared. In potentiation of the sedating effect of urethan in mice, the phenothiazines were 5-15 times more effective than the corresponding phenoxazines. The acetylated compds. were more active than the nonacetylated, but the duration of their action was shorter. No regular variation in duration of action was observed. In inhibition of conditioned reactions in E3 rats (Maffii, CA 53, 14324a) also, the phenothiazines were the more potent, and the acetylated derivs. were more active than the nonacetylated. I-IV toxicities follow (R' and subcutaneous L.D.50 mg./kg. mice given): I: H, 1300; OH, 350; OMe, 1350; OEt, >2000; CH2CH2OH, 480. II: H, 820; OH, 470; OMe, >2000; OEt, gt2000; CH2C2OH, 365. III: H, 930; OH, 480; OMe, 1000; OEt, >2000; CH2CH2OH, 518. IV: H, 820; OH, 465; OMe, 900; OEt, >2000; CH2CH2OH, 500.
IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)-
(nervous system depression by and toxicity of)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

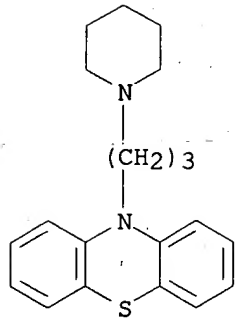


L8 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1964:45767 CAPLUS
DN 60:45767
OREF 60:8041c-g
TI 10-(Alkoxypiperidinopropyl)phenothiazines
IN Stach, Kurt; Thiel, Max; Bickelhaupt, Friedrich; Schaumann, Wolfgang
PA C. F. Boehringer & Soehne G.m.b.H.
SO 4 pp.
DT Patent
LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1159954		19631227	DE	19611125
	BE 625227			BE	
	FR 1344593			FR	
	GB 966278			GB	

AB The title compds. (Ia and their salts), where X is a halogen or an alkoxy or acyl radical and R an alkoxy group, have a psychotropic action. 3-Acetyl-10-(.gamma.-chloropropyl)phenothiazine ethylene ketal (I) (32 g.), 14 g. pulverized K2CO3, 2 g. NaI, and 9 g. 4-methoxypiperidine refluxed 4 hrs. in 450 ml. Et2CO, 7 g. K2CO3 added, the mixt. heated 4 hrs., filtered, the filtrate evapd., the residue dissolved in C6H6, extd. with 2N HCl, the ext. washed with C6H6, made alk. with dil. NaOH, the base taken up in C6H6, the ext. dried, evapd., the residue dissolved in Et2O, and the HCl salt pptd. with ethereal HCl and recrystd. from iso-PrOH gave 19.2 g. Ia(X = Ac, R = OMe) HCl salt (II), m. 130.degree.. I(m.87.degree.) was prepd. by treatment of 3-acetylphenothiazine ethylene ketal with CH2BrCH2CH2Cl and NaNH2 in liquid NH3, evapn. of the NH3, extn. of the residue with Et2O, and recrystn. from Et2O-ligroine. 3-Methoxyphenothiazine (23 g.) in 150 cc. PhMe refluxed 3 hrs. with 4 g. NaNH2, 19 g. 1-(.gamma.-chloropropyl)-4-methoxypiperidine (III) added, the mixt. refluxed 6 hrs., cooled, stirred with H2O, then dil. HOAc, made alk. with soda, the sepd. oil taken up with Et2O, the Et2O soln. concd. to dryness over K2CO3, and the residue distd. in vacuo gave 23 g. Ia (X = R = OMe), b0.1 230-40.degree.. III (b13 123-6.degree.) was prepd. by treatment of 4-methoxypiperidine with .gamma.-chloropropanol in the presence of K2CO3 and butanone, and treatment of the resulting 1-(.gamma.-hydroxypropyl)-4-methoxypiperidine (b0.2 85-8.degree.) with SOCl2 and CHCl3. 3-Chloro-10-(.gamma.-chloropropyl)phenothiazine (31 g.), 11.5 g. 4-methoxypiperidine, 14 g. K2CO3, 1 g. NaI, and 280 cc. butanone refluxed 10 hrs., the mixt. filtered, washed with butanone, the filtrate concd., the residue dissolved in dil. HOAc and extd. with Et2O, the acid soln. made alk. and shaken with CH2Cl2, and the residue distd. in vacuo gave 33 g. Ia (X = Cl, R = OMe), b0.09 230-5.degree.. I (18.2 g.), 6.5 g. 4-ethoxypiperidine, 8 g. K2CO3, 1 g. NaI, and 200 ml. Et2CO treated as in the prepn. of II gave 11 g. Ia (X = Ac, R = OEt), b0.0001 233-40.degree.

IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)- (derivs.)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)


N
(CH2)3
N
S

L8 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1963:448385 CAPLUS
DN 59:48385
OREF 59:8750a-h,8751a-f
TI The development of psychotropic agents. IV. Diphenylamine derivatives with piperidyl-substituted side chains
AU Stach, K.; Thiel, M.; Bickelhaupt, F.
CS Firma C. F. Boehringer Soehne G.m.b.H., Mannheim-Waldhof, Germany
SO Monatshefte fuer Chemie (1962), 93(5), 1090-1106
CODEN: MOCMB7; ISSN: 0026-9247
DT Journal
LA German
AB cf. CA 59, 6389e. A 4-piperidone HCl (1 mole) in 2 l. C6H6, 2 moles secondary alc., and 2 g. p-Me-C6H4SO3H was refluxed until no more H2O distd., the C6H6 soln. decanted, the residue treated with 1 l. CHCl3 and then with 120 g. K2CO3 and 120 ml. H2O with stirring, the CHCl3 layer sepd., the aq. soln. extd. several times with CHCl3, and the combined CHCl8 exts. evapd. to give I (R, R1, X, % yield, and b.p. given); H, H, CH2CH2, 80, b26 108-10.degree.; H, H, (CH2)3, 72, b20 118-20.degree.; H, H, CH2CHCH2OH, 58, b13 175-7.degree.; Me, H, CH2CH2, 28, b0.2 60-2.degree.; Me, Me, CH2CH2, 67, b0.2 50-2.degree.. A soln. of 0.1 mole substituted alkyl chloride and 0.12 mole I in 200 ml. butanone or Et2CO was treated with 0.15 mole alkali carbonate and 0.5 g. NaI, the mixt. refluxed 8-10 hrs., filtered, the filtrate evapd. to dryness, the residue dissolved in Et2O, extd. at 0-10.degree. with 5-10% AcOH, the acid ext. alkalized, and extd. with Et2O to give II (R, X, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, (CH2)2, -, 67, 100-1.degree., 229-31.degree.; H, (CH2)3, -, 65, 82-4.degree., 154-5.degree.; H, (CH2)2, S, 81, 116-18.degree., 195.degree.; H, (CH2)2, S, 74, 132-3.degree., 193-4.degree.; H, (CH2)2, CH2OH, S, 37, 117-18.degree., -; H, (CH2)2, S (the piperidine ring is 2,6-Me2 disubstituted), 27, b0.2 278-82.degree., 140-1.degree.; Cl, (CH2)2, S, 83, b0.2 280-90.degree., 151-2.degree.; OMe, (CH2)2, S, 73, 80-2.degree., -; H, (CH2)2, O, 81, 103-5.degree., 212-13.degree.; H, (CH2)2, CH2CH2, 70, -, 205-6.degree.; H, (CH2)2, CH:CH, 69, 102-3.degree., 206-8.degree.. III (R and Y as for II) (0.1 mole) and 0.1 mole NaNH2 or NaH in 200 ml. abs. PhMe refluxed 4 hrs., treated with 0.1 mole 1-(3-chloropropyl)-4-piperidone ethylene ketal, refluxed 6-8 hrs., decompd. with H2O, extd. with dil. AcOH, and worked up as usual also gave II. 1-(2-Ethoxycarbonylethyl)-4-piperidone-HCl (26 g.), 9 g. glycol, 300 ml. abs. C6H6, and 0.5 ml. concd. H2SO4 refluxed until no more H2O was collected, the mixt. cooled to 0.degree., poured into concd. Na2CO8 soln., the C6H6 sepd., washed with H2O, dried, and distd. gave 82% the ethylene ketal (IV), b0.2 113-16.degree.; HCl salt m. 159-60.degree.. IV in Et2O reduced with LiAlH4 gave 85% 1-(3-hydroxypropyl)-4-piperidone ethylene ketal (V), m. 86-7.degree., also prepd. in 72% yield by refluxing 42.5 g. 4-piperidone ethylene ketal, 26.3 g. trimethylene chlorohydrin, 50 g. K2CO3, 1 g. NaI, and 250 cc. Et2CO 10 hrs. V with SOCl2 in refluxing C6H6 gave 97% 1-(3-chloropropyl)-4-piperidone ethylene ketal, b0.6 121-5.degree.; HCl salt m. 191-2.degree.. II.HCl dissolved in 10-15 parts H2O, treated with 2N HCl to Congo red, refluxed 8-12 hrs., alkalized, and extd. with Et2O or CH2Cl2 gave the free ketone (R, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, -, 78, -, 169-70.degree. (monohydrate); H, S (Va), 81, 78-80.degree., 88-90.degree. (monohydrate); H, S (the piperidine ring is 2,6-Me2 disubstituted), 92, -, 152-3.degree., Cl, S, 85, -, 102-4.degree. (monohydrate); OMe, S, 67, 93-5.degree., 80-90.degree. (monohydrate); H, O, 58, 86.degree., 190-2.degree.; H, CH2CH2, 75, b0.4 243-8.degree., 91-199.degree. (sic) (monohydrate); H, CH:CH, 60, 87-8.degree., 94-6.degree. (monohydrate). The free ketone was

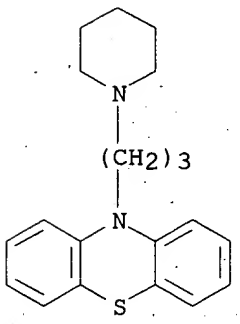
reduced with Raney Ni in MeOH, with LiAlH4 in Et2O, or with NaBH4 in MeOH to the 4-piperidinol analog (R, Y, % yield, m.p., and m.p. HCl salt given): H, -, 70, 92-3.degree., 233-4.degree.; Ac, -, 55, -, 192-3.degree. H, S, 82, -, 191-2.degree.; Cl, S, 70, 92-3.degree., -; OMe, S, 66, 93-4.degree., -; Ac, S, 82, -, 167-8.degree.; MeCHOH, S, 72, 155-6.degree., -; H, O, 79, -, 256-8.degree.; acetyl ethylene ketal, O, 65, 107-8.degree. -; Ac, O, 75, -, 240-2.degree.; H, CH2CH2, 73, -, 197-8.degree.; H, CH:CH, 60, -, 208-10.degree.. To a soln. of 3.5 g. Na in 350 cc. liquid NH8 in the presence of 0.5 g. FeCl3.6H2O was added 28.5 g. 2-acetylphenothiazine ethylene ketal, the mixt. stirred 1 hr., treated with 1-chloro-3-bromopropane, stirred 5 hrs., treated with 300 cc. Et2O, and allowed to evap. overnight gave 44-50% 2-acetyl-10-(3-chloropropyl)phenothiazine ethylene ketal (VI), m. 87-9.degree.. VI (22 g.), 7.3 g. 4-piperidinol, 17 g. K2CO3, 1.1 g. 82% NaI, and 280 cc. Et2CO refluxed 8 hrs. under N gave 82% 2-acetyl-10-[3-(4-hydroxypiperidino)propyl]phenothiazine (VII) as HCl salt, m. 159-60.degree.. reduced with NaBH4 in alk. MeOH to the 2-(1-hydroxyethyl) analog of VII. m. 155-6.degree., in 72% yield. Treating 2-acetylphenoxazine ethylene ketal with NaNH2 in liquid NH3 and then with 1-chloro-3-bromopropane as above gave 54% 2-acetyl-10-(3-chloropropyl)phenoxazine (VIII) ethylene ketal, m. 82-4.degree. (Et2O-ligroine), hydrolyzed with alc. aq. HCl to 13-20% VIII, m. 90-3.degree.. VIII ethylene ketal, 4-piperidinol, K2CO8, and NaI in butanone as above gave 65% 3-(4-hydroxypiperidyl)propyl analog, m. 107-8.degree., hydrolyzed with 2N HCl to 75% 2-acetyl-10[3-(4-hydroxypiperidyl)propyl]phenoxazine, m. 164-5.degree.; HCl salt m. 239-41.degree. (alc.). 4-Methoxypyridine (140 g.), 10 cc. MeOH, and 10 cc. H2O with 0.5 g. Ru2O4 under an initial pressure of 150 atm. H was slowly heated to 140.degree., at which temp. redn. began. The temp. was kept below 150.degree. by cooling, redn. continued for 4 hrs., and the mixt. worked up to give 70-75% 4-methoxypiperidine, b. 163-6.degree.. Similarly were prepd. 4-ethoxy-(b. 174-6.degree.), 4-propoxy-(b. 196-8.degree.), and 4-isopropoxypiperidine, b. 184-6.degree.. By methods used for the prepn. of II were prepd. the following IX (R, R1, Y, % yield, m.p. or b.p., and m.p. HCl salt given): H, OMe, -, 70, 94-6.degree., -; H, OEt, -, 62, 66-7.degree., 180-1.degree.; Ac, OMe, 75, -, 100-5.degree. Ac, OEt, -, 72, -, 195-6.degree.; H, OMe, S (X), 75, -, 156-8.degree. H, OEt, S, 68,-, 156 7.degree.;-H, iso-PrO, S, 74, 155-7.degree.; H, PrO, S, 50, -, 156-8.degree.; Cl, OMe, S, b0.05 230-5.degree., -; OMe, OMe, S, 64, b0.1 235-40.degree., -; Ac, OMe, S, 83, -, 130-1.degree.; MeCHOH, OMe, S, 89, -; 124-6.degree.; Ac, OEt, S, 54, 233-40.degree./10-3 mm., -; H, OMe, O, 61, 45-7.degree., 192-3.degree.; H, OEt, O, 55, 58-60.degree., 198-200.degree.; Ac, OMe, O; 70, -, 177-9.degree.; Ac, OEt, O, 70, -, 198 200.degree.; H, OMe, CH2CH2, 60, -, 172-4.degree.; H, OMe, CH:CH, 63, -, 181-2.degree.. To a soln. of 13 g. IX (R = H, R1 = OH, Y = S) and 10 g. (iso-PrO)3Al in 100 cc. abs. dioxane was added over 8 hrs. CH2N2-Et2O (from 36 g. nitrosomethylurea). After several hrs. stirring, the soln. was poured into 2N HCl, the aq. layer alkalized, extd. with Et2O, Et2O distd., the residue dissolved in alc., and treated with (CO2H)2 to give 70% X oxalate, m. 185-6.degree.. To 200 cc. liquid NH3, 5.8 g. NaNH2, and 20 g. 2-acetylcarbazole in 100 cc. tetrahydrofuran (THF) stirred 1 hr. was added 22 g. 1-chloro-3-bromopropane and the mixt. stirred 6 hrs. with dry ice-cooling to give 57% 2-acetyl-9-(3-chloropropyl)carbazole, m. 99-101.degree.. To a hot soln. of 2.6 g. NH2OH.HCl in 50 cc. EtOH was added 10 g. Va to give 96% the oxime-HCl, m. 228-30.degree.; free base m. 112-14.degree.. Redn. of the oxime in THF with LiAlH4 gave 70% 1-[3-(10-phenothiazinyl) propyl]-4-aminopiperidine-2HCl (XI), m. 266-8.degree.. Va (10 g.) in 100 cc. MeOH was satd. with MeNH2 and then

reduced with Raney Ni to give 76% the 4-methylamino analog of XI, m. 263-4.degree.. Similarly, with NH3, was prepd. XI. Redn. of 9.7 g. 1-[3(10-phenothiazinyl)propyl]-4-dimethylaminopyridinium chloride and 1 g. NaOH in 10 cc. MeOH with 8 g. NaBH4 in MeOH gave 82% 4-dimethylamino analog of XI, m. 284-6.degree.. 4-(2-Hydroxyethyl)piperidine (150 g.) and 500 cc. EtOH in the presence of 3 g. RuO2 was reduced in an autoclave at 90.degree. and 160-90 atm. H for 80 hrs. to give 94% crude 4-(2-hydroxyethyl)piperidine (XII), b0.2 101-11.degree.. By methods used for the prepn. of II, an alkyl chloride and XII gave the following IX (R1 = CH2CH2OH) (Y, R, % yield, m.p., and m.p. HCl salt given): -, H, 50, -, 188-9.degree.; -, Ac, 63, -, 100-3.degree.; S, H, 68, -, 182-3.degree.; S, Ac, 80, 98-100.degree., 100-10.degree.; O, H, 54, 109-10.degree., 150-2.degree.; O, Ac, 90, 114-15.degree., 215.degree.; O, acetyl ethylene ketal, 77, 106-7.degree. -. Similarly were prepd. the following IX (R1 = H) (Y, R, m.p. HCl salt, and % yield given): -, H, 221-3.degree., 74; -, Ac, 188-9.degree., 78; S, H, 176-7.degree., 40; S, Ac, 175-6.degree., 60; O, H, 199-200,% 70; O, Ac, 230-2.degree., 85 (prepd. via the ethylene ketal, m. 80-1.degree.).

IT **99889-18-6**, Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (prepn. of)

RN 99889-18-6 CAPLUS

CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX NAME)



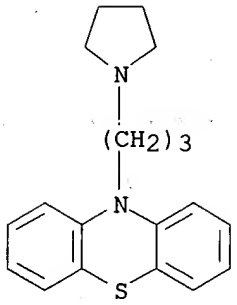
● HCl

L8 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1963:14908 CAPLUS
DN 58:14908
OREF 58:2457d-h
TI Amine derivatives of phenothiazine
PA Rhone-Poulenc
SO 2 pp.; Addn. to Fr. 1,222,405
DT Patent
LA Unavailable

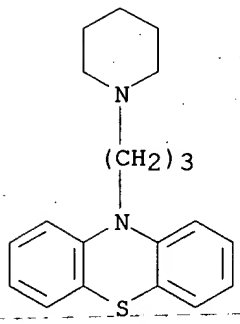
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 72913		19600921	FR	19550622

AB Some tertiary amine derivs. of various N-3-aminopropylphenothiazines can be useful as industrial compds. The hydrochloride of I (X = 3-OMe, R = Me, R' = R'' = H) (8.4 g.) was dissolved in a mixt. of 150ml. MeOH and 45 g. 33% aq. H2CO, 0.5 g. Adams Pt catalyst was added, and H introduced at ordinary temp. and pressure, when H absorption stopped the catalyst was filtered off, MeOH evapd. in vacuo, the residue taken up in CHCl3, the CHCl3 soln. washed with H2O and dried, and the solvent evapd. to give I (X = 3-OMe, R = R' = R'' = Me), m. 116-18.degree. (C7H16 and Me2CO), [.alpha.]20D - 12.degree. (5%, CHCl3). 3-Propylphenothiazine (15 g.) was dissolved in 75 ml. xylene, 2.94 g. NaNH2 added, the mixt. refluxed for 1 hr., a soln. of 8.9 g. 1-dimethylamino-2-methyl-3-chloropropane in 40 ml. xylene was added over 15 min., the resulting mixt. refluxed for 17 hrs., the mixt. taken up in dil. H2SO4, the xylene layer sepd., the acid layer washed with Et2O, the acid soln. made alk. and extd. with Et2O, the Et2O evapd., and the residue distd. in vacuo to give 17 g. I (X = 3-Pr, R = R' = R'' = Me), b0.2 196.degree., maleic acid salt m. 133.degree. (EtOAc). Similarly prepd. was the 3-ethoxy analog, b0.2 175-86'; maleate m. 110.degree.. Fr. Addn. 72,914; 2 pp. Addn. to Fr. 1,222,405. Optically active I (X = 3-Et, R = Me, R' = R'' = H) was treated with H2CO and H in MeOH in the presence of Adams Pt catalyst to give I (X = 3-Et, R = R' = R'' = Me), m. 136.degree. (EtOAc), [.alpha.]20D - 11.5.degree. (4% MeOH). A racemic mixt. of 3-[N-(3-methoxyphenothiazinyl)]-2-methylpropionitrile was treated with Me2NH, Pd on BaSO4, and H to give I (X = 3-OMe, R = R' = R'' = Me), m. 102.degree.. Fr. Addn. 72,915, Sept. 21, 1960, Appl. Sept. 27, 1955; 3 pp. Addn. to Fr. 1,222,405. I (X = 3-OMe, R = R' = R'' = Me) (II) was converted to the 9,9-dioxo deriv., m. 110.degree., when treated with H2O2 and H2SO4. II was obtained when I (X = 3-OMe, R = R' = Me, R'' = H) was treated with aq. H2CO and H in the presence of Adams Pt catalyst. 3-[N-3-methoxyphenothiazinyl)] -2-methyl-1-methyl-formamidopropane was treated with LiAlH4 in tetrahydrofuran to give II. II was obtained when 3-[N-(3-methoxyphenothiazinyl)]-2-methylpropyl p-tosylate was heated with Me2NH and when N,N-dimethyl-3-[N-(3-methoxyphenothiazinyl)]-2-methylpropionamide was heated with LiAlH4. 3-Methoxy-phenothiazine was treated with NaNH2 and 2-methyl-3-chloropyrrolidinopropane to form I (X = 3-OMe, R = Me, R' = R'' = pyrrolidino), b0.4 177-90.degree., m. 98.degree. (EtOH); hydrochloride m. 182.degree.. The dimethylbenzylammonium bromide of II was prepd. in EtOAc, m. 160.degree..

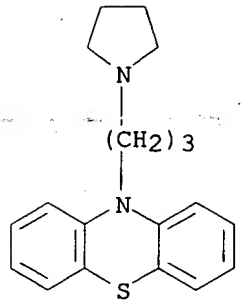
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (derivs.)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)


N
(CH2)3
N
S

L8 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1962:459195 CAPLUS
DN 57:59195
OREF 57:11788g-i
TI Antiarrhythmic action of phenothiazine derivatives
AU Sato, Tatsuo; Tanabe, Yoshinori
CS Hokkaido Univ., Sapporo
SO Japan. Circulation J. (1962), 26, 210-24
DT Journal
LA Unavailable
AB Expts. in dogs demonstrated that intravenous injection of chlorpromazine (I) (1 mg./kg.) can stop ventricular extrasystole and tachycardia induced by thiopental and BaCl2 soln. I or promazine was highly effective on clin. extrasystole, but no effects were observed on auricular fibrillation. From assessment of the anthiarrhythmic activity of 21 phenothiazine derivs., a close relation was found between chem. structure and the effectiveness of the drugs. Among the drugs tested, 4695 RP was the most potent. The topical application of I resulted in immediate termination of ventricular tachycardia, but sympathetic blockade reduced the effect of I. Therefore, it was concluded that the antiarrhythmic action of I is dependent partly on its direct depressant action upon the foci and partly on its indirect action through sympathetic nerves. In the excitability of the dog heart, phenothiazine derivs. increase the threshold with min. influence on the refractory period.
IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)-
98845-25-1, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride
(heart arrhythmia inhibition by)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



RN 98845-25-1 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)



●x HCl

Same as bizzle !

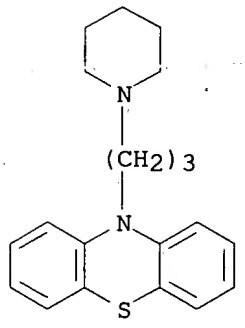
L8 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1962:46049 CAPLUS
DN 56:46049
OREF 56:8723d-i,8724a
TI Phenothiazine derivatives
IN Jacob, Robert Michel; Robert, Jacques G.
PA Societe des Usines Chimiques Rhone-Poulenc
DT Patent
LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1092476		19590414	DE	
PRAI	FR		19580424		

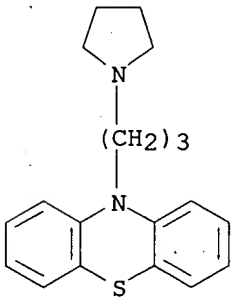
AB Derivs. of 10-(propylpiperidino)phenothiazine, which are therapeutically effective as antiemetics, analgetics, as tranquilizers, and for enhancing the effect of narcotics, are made by treating substituted propylphenothiazines with piperidine derivs. Thus, 3-methoxy-10-(3-chloropropyl)phenothiazine was refluxed in xylene with ethyl isonipecotinate 15 hrs. to prep. 3-methoxy-10-[3-(4-carbethoxypiperidino)propyl]phenothiazine (I); oxalate m. 130-2.degree.. I (26 g.) in 100 cc. EtOH was heated in an autoclave with 200 cc. liquid NH3 7 hrs. to 200.degree.. The mixt. was evapd. to dryness, the residue dissolved in 200 cc. EtOAc, extd. with 100 cc. 0.7N methanesulfonic acid, the acid soln. filtered with active C, made alk., and extd. with Et- OAc. The solvent was evapd. in vacuo to obtain 12.5 g. 3-methoxy-10-[3-(4-carbamidopiperidino)propyl]phenothiazine, m. 132-4.degree., which was found in biol. tests to be more effective than 3-methoxy-10-(3-piperidinopropyl)phenothiazine. 3-Cyanophenothiazine was condensed with 1-chloro-3-bromopropane in liquid NH3 with Na to obtain 3-cyano-10-(3-chloropropyl)phenothiazine (II), m. 139-40.degree.. II (10 g.) in 100 cc. EtOH was refluxed with 4.6 g. isonipecotinamide in the presence of 3.5 g. anhyd. Na2CO3 24 hrs., then with 1.75 g. more Na2CO3 8 hrs., and with 1.75 g. more Na2CO3 16 hrs. The solvent was evapd., the residue extd. from EtOAc soln. with 200 cc. N HCl, and after making the aq. soln. alk., it was extd. with EtOAc to obtain after evapn. of the solvent 4.3 g. 3-cyano-10-[3-(4-carbamidopiperidino)propyl] phenothiazine, m. 148-50.degree.(benzene and EtOH). By the same method were prepd. 3-methylsulfonyl-10-(3-chloropropyl)phenothiazine, m. 132-4.degree., and from this 3-methylsulfonyl-10-[3-(4-carbamidopiperidino)propyl]phenothiazine, m. 170-1.degree., and similarly the corresponding 3-acetyl deriv., m. 176-7.degree.. By starting with 3-trifluoromethyl-10-(3-chloropropyl)phenothiazine, m. 74-6.degree., and nipecotinamide was obtained 3-trifluoromethyl-10-[3-(3-carbamidopiperidino)propyl]phenothiazine, m. 129-30.degree.. Similarly was made 3-methylthio-10-[3-(3-carbamidopiperidino)propyl]phenothiazine, m. 120-2.degree.. By starting with 3-methoxy-10-(3-chloropropyl)phenothiazine and 4-(diethylcarbamido)piperidine hydrochloride, m. 270-2.degree., that had been obtained by hydrogenation of 4-(diethylcarbamido)pyridine with Raney Ni at 100 atm. and 170.degree., was prepd. 3-methoxy-10-[3-(4-diethylcarbamidopiperidino)propyl]phenothiazine hydrochloride, m. 150-4.degree.. Similarly was made from isonicotinyl chloride and morpholine 4-(morpholinocarbonyl)pyridine, m. 75-6.degree., and from this 4-(morpholinocarbonyl)piperidine and its HCl salt, m. 305.degree., and from this 3-methoxy-10-[3-(4-morpholinocarbonylpiperidino)-2-methylpropyl]phenothiazine, m. 168-72.degree..

IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)-(derivs.)
RN 3733-38-8 CAPLUS

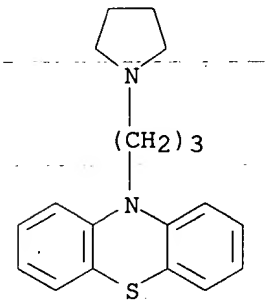
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



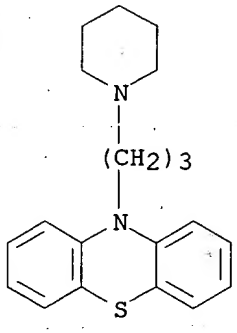
L8 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1962:41830 CAPLUS
DN 56:41830
OREF 56:7941d-e
TI Action of derivatives of phenothiazine on the in vitro multiplication of plant and animal cells and microorganisms
AU Loddo, B.; Zanda, G. E.
CS Univ. Cagliari, Italy
SO Archives Internationales de Pharmacodynamie et de Therapie (1961), 133, 1-9
CODEN: AIPTAK; ISSN: 0003-9780
DT Journal
LA Unavailable
AB Fargan, Largactil, Antipar, 4695 RP, 4632 RP, 3015 RP, and 4070 RP inhibited the growth of Bacillus anthracis and Staphylococcus aureus at 1-6 .gamma./ml. The minimal inhibitory concn. for Escherichia coli was higher than 50 .gamma./ml. The elongation of the root tip of Lupinus albus was inhibited by RP 4670, 20 .gamma./ml.; Largactil and RP 3300, 33; RP 4695, 50; Antipar, Fargan, and RP 4632, 66; and RP 3015 and RP 2987, 100. All tested compds. inhibited the multiplication of HeLa, monkey kidney, and ox kidney cells in vitro at between 3 and 33 .gamma./ml. Polio and vaccinia viruses were inhibited at higher concns.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(cell growth inhibition by)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



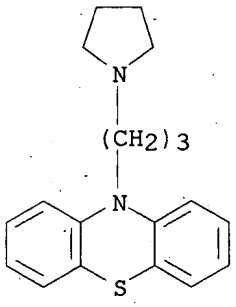
L8 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1961:105874 CAPLUS
DN 55:105874
OREF 55:19932f-i
TI Phenothiazine derivatives. XVI. Preparation of amino substituted phenothiazines by reductive amination with $LiAlH_4$
AU Hromatka, O.; Prostler, G.; Sauter, F.
CS Univ. Vienna
SO Monatshefte fuer Chemie (1960), 91, 590-4
CODEN: MOCMB7; ISSN: 0026-9247
DT Journal
LA Unavailable
AB 10-Phenothiazinepropionic acid (I) or its ethyl ester (II) was reduced with $LiAlH_4$ (III) in the presence of secondary amines to a series of 10-(.gamma.-aminopropyl)phenothiazines (IV). The reaction conditions were much milder than those of U.S. 2,820,031 (CA 52, 3873e) so that IV were probably not formed from the corresponding amides as intermediates. II (20 g.) was added in 3 hrs. to 6 g. III in 400 ml. abs. Et_2O, refluxed 3 hrs., and distd. in vacuo to give 16 g. 10-(.gamma.-hydroxypropyl)phenothiazine (V); phenylurethan of V, m. 114-15.degree. (alc.); 3-nitrophthalate of V, m. 195-8.degree. (alc.), green crystals. II (10 g.) in 100 ml. Et_2O was added in 2 hrs. to 4 g. III in 50 ml. Et_2O to which 9 g. morpholine (VI) in 50 ml. Et_2O had been dropped to give 1.4 g. 10-(.gamma.-morpholinopropyl)phenothiazine (VII) by distn. in vacuo. VII was also prepd. by adding 20 g. abs. VI to 2 g. III under gentle heating, 10 g. more VI added, and 5 g. II added at 110.degree. to give 0.9 g. VII. Similarly were prepd. from II, III, and the following secondary amines, the corresponding IV; pyrrolidine, piperidine, N-ethylpiperazine, benzylpiperazine, and N-methylpiperazine which gave 10-(.gamma.-N-methylpiperazinylpropyl)phenothiazine, m. 51-2.degree.. I or II (5 g.) heated with 20 g. VI for 5 hrs. at 130.degree. gave only I on isolation of the reaction products. No phenothiazinepropionamide was found.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
(prepn. of)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



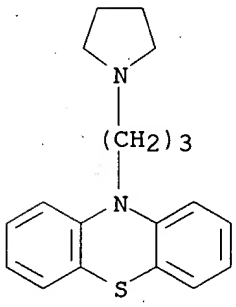
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)


N
(CH2)3
N
S

L8 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1961:83172 CAPLUS
DN 55:83172
OREF 55:15743b
TI Pharmacological research on a series of alkyl-substituted amine derivatives of dibenzo-p-thiazine. VI. Action on the brain protein picture
AU Tonini, G.; Missere, G.; Murari, G.
CS Univ. Bologna
SO Bollettino - Societa Italiana di Biologia Sperimentale (1958), 34, 1073-4
CODEN: BSIBAC; ISSN: 0037-8771
DT Journal
LA Unavailable
AB The changes produced in brain proteins are not assocd. with structural changes in the drugs studied.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on proteins in blood serum and brain)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1961:83170 CAPLUS
DN 55:83170
OREF 55:15742i,15743a
TI Pharmacological research on a series of alkyl-substituted amine derivatives of dibenzo-p-thiazine. IV. Action on the serum proteins of the rat
AU Murari, G.; Missere, G.; Tonini, G.
CS Univ. Bologna
SO Bollettino - Societa Italiana di Biologia Sperimentale (1958), 34, 1069-71
CODEN: BSIBAC; ISSN: 0037-8771
DT Journal
LA Unavailable
AB cf. CA 53, 20552g. The drugs studied had a slight tendency to decrease the albumin and the .alpha.- and .gamma.-globulins and the albumin/globulin ratio. There was a const. tendency to increase the .beta.-globulins. The total blood protein was not changed significantly.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on proteins in blood serum and brain)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)

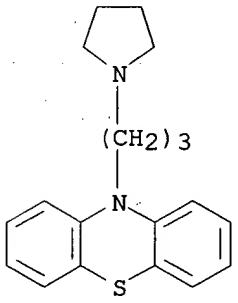


L8 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1961:43339 CAPLUS
DN 55:43339
OREF 55:8437f-h
TI 10-(Pyrrolidinoalkyl)phenothiazines
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
LA Unavailable
FAN.CNT 1

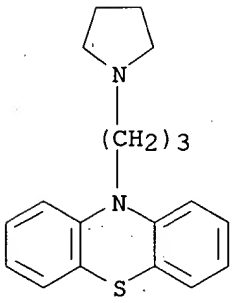
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 1167631		19581127	FR	

AB Pyrrole (I) (20.1 g.) was added dropwise over 20 min. with vigorous stirring to 11.7 g. K in 75 cc. anhyd. xylene, the suspension heated 1 hr., a further 6 g. I added, the mixt. refluxed 15 min., cooled to room temp., 55.1 g. 10-(3-chloropropyl)phenothiazine and 1 g. NaI added in one portion, the mixt. refluxed 18 hrs., cooled, washed with H2O, and worked up to give 35.5 g. 10-(3-pyrrolidinopropyl)-phenothiazine, m. 110-11.degree. (iso-PrOH).

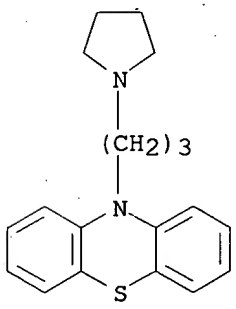
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (prepn. of)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1960:113452 CAPLUS
DN 54:113452
OREF 54:21651b-d
TI Photodynamic action of phenothiazine derivatives
AU Prino, G.; Santamaria, L.
CS Univ. Milan
SO Bollettino Chimico Farmaceutico (1960), 99, 355-60
CODEN: BCFAAI; ISSN: 0006-6648
DT Journal
LA Unavailable
AB The intensity of the photodynamic action in tests on paramecia depended much on the substrate used. At a concn. of 10-6M, introduction of a MeO group in the phenothiazine ring reduced the effect. Increasing the no. of C atoms in the side chain from 2 to 3 usually increased the activity. Depolymerization of mucin showed that all phenothiazines can be divided into those with high and low activity. The lower activity was found in compds. with 2 C atoms between phenothiazine and amine N. Introduction of Cl caused only a slight redn. in the action on mucin; the MeO group had no effect. In blood serum, electrophoretic variations did not always agree with other tests.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(photodynamic action of)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1959:114541 CAPLUS
DN 53:114541
OREF 53:20552f-h
TI Pharmacology of a series of alkylamine derivatives of phenothiazine. II. Action on basal metabolism in the rat
AU Tonini, G.; Dall'Olio, G.
CS Univ. Bologna, Italy
SO Farmaco, Edizione Scientifica (1958), 13, 611-18
CODEN: FRPSAX; ISSN: 0430-0920
DT Journal
LA Unavailable
AB Chlorpromazine increased the O consumption during the first part of its action. Amino derivs. of phenothiazine have quite variable effects on metabolic rate which as a rule are not related to the sedative action. 10-(3-Dimethylamino-2-methylpropyl)phenothiazine and 2-methoxy-10-(3-dimethylamino-2-methylpropyl)phenothiazine do not inhibit the metabolism; but 2-chloro-10[3-(4-methylpiperazinyl)propyl]phenothiazine, which is a strong sedative, depresses O consumption. No relation was found between the metabolic actions and antihistaminic effects.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on basal metabolism)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



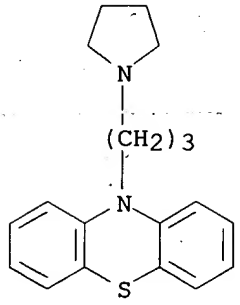
L8 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1959:62720 CAPLUS
DN 53:62720
OREF 53:11417g-i,11418a-b
TI Phenothiazines
IN Jacob, Robert M.; Robert, Jacques G.
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 940829		19560329	DE	

AB 1-(or 3-) Alkyl (or alkoxy)phenothiazine is treated with a dialkylaminopropyl or pyrrolidinopropyl halide to give the N-phenothiazine deriv., alternatively, a N-(halopropyl)phenothiazine deriv., can be treated with NHMe2 or pyrrolidine. The obtained products increase the action of anaesthetic and analgetic drugs. The starting material is obtained by cyclization of 3-alkyl (or 3-alkoxy)diphenylamines with S; the resulting mixt. of 1- and 3-alkyl(or alkoxy) phenothiazines can be used without or after sepn. of the isomers. Thus, 3-methyldiphenylamine and S were condensed to give methylphenothiazine (I) (m. 187-8.degree.); I (10.6 g.), xylene (40 g.), and 90% NaNH2 (2.53 g.) were mixed, treated within 1 hr. with refluxing with a mixt. of 8 g. 3-dimethylamino-1-chloropropane and 8 g. xylene, allowed to cool, treated with 150 ml. H2O, made slightly acidic (HCl), and sepd. from the xylene. The aq. liquor was made strongly alk. (NaOH), and extd. with Et2O; the Et2O-phase was distd. to give 10-(3'-dimethylaminopropyl-(1'))-(1-or 3-)methylphenothiazine, b0.1 186-8.degree.; HCl salt m. 194.degree.; yield 11.6 g. Similarly were prepd. 10-(3'-pyrrolidinopropyl-1')-(1- or 3-)methylphenothiazine, b0.15 207-12.degree., oxalate m. 175.degree.; (1-or 3-) methoxyphenothiazine, m. 179-80.degree.; 10-(3'-dimethylamino-propyl-1')-methoxyphenothiazine, b. 211.degree.; methiodide m. 170.degree., oxalate m. 178-9.degree.; 10-(3'-pyrrolidinopropyl-1')-methoxyphenothiazine, b0.1 205-7.degree., HCl salt m. 143-5.degree.; 10-(2'-dimethylaminopropyl-1')-methoxyphenothiazine, b0.1 198-202.degree., HCl salt m. 170-95.degree.; (1- or 3-)ethoxyphenothiazine, m. 131-2.degree.; 10-(3'-dimethylaminopropyl-1')ethoxyphenothiazine, b0.15 212-16.degree., oxalate m. 157-8.degree.; (1- or 3-)butoxyphenothiazine m. 119-121.degree. and 10-(3'-dimethylaminopropyl-1')butoxyphenothiazine b0.15 202-5.degree., oxalate m. 154.degree.. Cf. Can. 472,002; Ger. 824,944 (C.A. 49, 2527a).

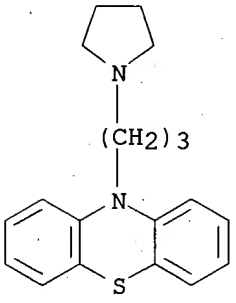
IT **113929-04-7**, Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- **114421-44-2**, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- **122871-96-9**, Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (prepn. of)

RN 113929-04-7 CAPLUS
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



D1—Me

RN 114421-44-2 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)

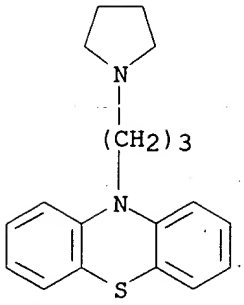


D1—O—Me

RN 122871-96-9 CAPLUS
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

CM 1

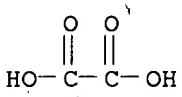
CRN 113929-04-7
CMF C20 H24 N2 S
CCI IDS



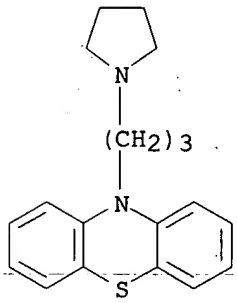
D1—Me

CM 2

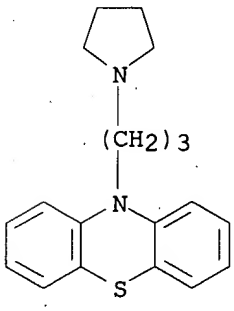
CRN 144-62-7
CMF C2 H2 O4



L8 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1959:41064 CAPLUS
DN 53:41064
OREF 53:7404f-h
TI The effect of tranquilizing drugs on enzyme systems
AU Smith, Jackson A.; Carver, Michael J.; Helper, Eleanor W.
CS Univ. of Nebraska Coll. of Med., Omaha
SO American Journal of Psychiatry (1958), 114, 1011-14
CODEN: AJPSAO; ISSN: 0002-953X
DT Journal
LA Unavailable
AB The effects of the various drugs on succinoxidase activity, as detd. by the manometric method of Schneider and Potter (C.A. 37, 57389), were studied in homogenates of rat liver and brain. The concns. (millimolar) of the drugs that produced 50% inhibition of the enzyme system in liver homogenates were: compazine, 0.27; chlorpromazine, 0.35; Wy 1137 [10-(3-pyrrolidinylpropyl)phenothiazine-HCl], 0.47; Wy 1107 [10-[3-(diethylamino)propyl]phenothiazine-HCl], 0.51; promazine, 0.61; phenergan, 0.68; reserpine, 1.9 (detd. by extrapolation, owing to low soly. of the drug); Mer 22 [1,2-diphenyl-1-(4-piperidyl)ethanol], 3.5; Mer 16 [.alpha.,.alpha.-diphenyl-1-methyl-2-piperidinethanol-HCl], 3.6; frenquel, 4.5; meratran, 5.6; and quiactin, 69. With rat-brain homogenates, the inhibition obtained with a given concn. of drug was about one-half that obtained with liver homogenates: no numerical data are given.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(succinic oxidase inhibition by)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1959:18818 CAPLUS
DN 53:18818
OREF 53:3503a-b
TI Effect of tranquilizing agents and related compounds on the succinoxidase system
AU Helper, Eleanor Wixon; Carver, Michael J.; Jacobi, Herbert P.; Smith, Jackson A.
CS Univ. of Nebraska Coll. of Med., Omaha
SO Archives of Biochemistry and Biophysics (1958), 76, 354-61
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA Unavailable
AB The effect of 13 tranquilizing agents or their pharmacologically inactive analogs on the succinoxidase system was detd. The phenothiazine group of drugs inhibited the succinoxidase system most strongly and was followed closely by reserpine, the derivs. of phenylcarbinol being the least active. In all cases, cytochrome oxidase was more sensitive and succinic dehydrogenase less sensitive to inhibition than was the complete succinoxidase system. Brain succinoxidase was less sensitive to inhibition than was liver succinoxidase. Conclusion: Inhibition of succinoxidase is not related to the mechanism of action of tranquilizers.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on succinoxidase system)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



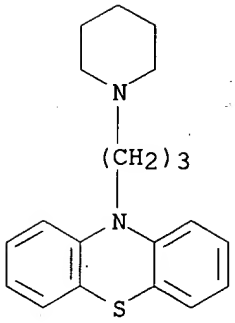
L8 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1958:1942 CAPLUS
DN 52:1942
OREF 52:390e-i,391a-h
TI 10-(3-Dimethylaminopropyl)-2-(trifluoromethyl)phenothiazine hydrochloride (VESPRIN) and related compounds. I
AU Yale, Harry L.; Sowinski, Francis; Bernstein, Jack
CS Squibb Inst. for Med. Research, New Brunswick, NJ
SO J. Am. Chem. Soc. (1957), 79, 4375-9
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
AB m-CF3C6H4NHPh (506 mg.), 134 g. S, and 12.9 g. iodine fused 3.5 hrs. at 150-60.degree., the hot melt poured into 3.5 l. warm PhMe, the soln. heated to boiling, treated with Hyflo, and filtered hot, the filtrate cooled to -5.degree. and filtered, the filtrate concd. to 1/2 its vol. and filtered, and the filter residues combined yielded 261 g. 2-(trifluoromethyl)phenothiazine (I), m. 183-5.degree.; the filtrate from the 2nd crop distd. yielded 185 g. 4-isomer (II) of I, b0.5 172-5.degree., m. 72-3.degree. (ligroine). I (26.7 g.), 4.7 g. NaNH2, 14.6 g. Me2N(CH2)3Cl, and 500 cc. dry xylene refluxed 17 hrs. with stirring, yielded 30 g. 10-[Me2N(CH2)3] deriv. (III) of I, b0.7 176.degree., n23D 1.5780; HCl salt, m. 172-4.degree. (decompn.). Similarly were prepd. the following 10-dialkylaminoalkyl derivs. (IV) of I (dialkylaminoalkyl group, % yield and b.p./mm. of base, and % yield and m.p. of HCl salt given): H2N(CH2)2, 42, 176-8.degree./0.6, 48, 161-2.degree. (PhCl and then abs. iso-PrOH); Me2NCHMeCH2, 20, 166-9.degree./3, 41, 224-5.degree. (decompn.) (abs. EtOH-Et2O); Et2N(CH2)2, 56, 171-3.degree./0.5, 74, 160-2.degree. (C6H6); Et2N(CH2)3 (V), 73, 167-70.degree./0.4, 79, 163-5.degree. (PhCl). The following IV of II: Me2N(CH2)3, 79, 169-72.degree./0.3, 61, 146-7.degree. (PhCl-Et2O); Me2NCHMeCH2, 77, 172-5.degree./0.4, 78, 196-7.degree. (dry PhCl); 3-pyrrolidinopropyl, 41, 176-9.degree./0.3, 35, 148-9.degree. (dry Me2CO). 2-[2-Nitro-4-(trifluoromethyl)phenylthio]anili ne (23.7 g.), 35 cc. Ac2O, and 2.5 cc. pyridine heated 1.5 hrs. on the steam bath gave 24.9 g. 2-[2-nitro-4-(trifluoromethyl)phenylthio]acetanili de (VI), m. 148-9.degree. (iso-PrOH). Me2CO (3.0 l.) added under N to 22 g. 85% KOH in 375 cc. 95% EtOH, stirred, and treated under N with 119.5 g. VI yielded the viscous gummy 10-Ac deriv. of 3-(trifluoromethyl)phenothiazine (VII), which refluxed 2 hrs. with 250 cc. 95% EtOH and 50 cc. concd. HCl, cooled, and filtered gave 86 g. VII, m. 214-16.degree.. VII (46.8 g.), 125 cc. CH2:CHCN, and 2 cc. 40% Triton B refluxed 1 hr. yielded 34.7 g. 3-(trifluoromethyl)-10-phenothiazinepropionitrile (VIII), m. 110-11.degree. (Me2CO). VIII (27.3 g.) reduced with 6.4 g. LiAlH4 in 500 cc. dry Et2O yielded 9.3 g. 10-[H2N(CH2)3] deriv. (IX) of VII, b0.5 175-8.degree.. IX (9.2 g.) in 14.7 g. HCO2H heated 8 hrs. at 90-100.degree. with 7 g. 37% formalin, cooled, and filtered, the filtrate treated with 30.4 cc. 0.955N aq. HCl and evapd. in vacuo, and the residue dissolved in 100 cc. H2O and made alk. with 20% aq. NaOH yielded 10-[Me2N(CH2)3] deriv. of VII, b0.3 168-71.degree.; HCl salt, m. 140-1.degree. (from PhMe), 66% yield. I (66.8 g.), 11.7 g. NaNH2, and 750 cc. dry xylene refluxed 2 hrs., cooled, treated dropwise with 58.6 g. 2-tetrahydropyranyl 4-chlorobutyl ether in 250 cc. dry PhMe, refluxed 3.5 hrs., filtered hot, and distd. in vacuo, the residue extd. with 500 cc. Et2O, and the ext. filtered and worked up yielded 97.8 g. 10-[4-(2-tetrahydropyranyloxy)-1-butyl] deriv. (X) of I, b0.2 200-2.degree.. X (97.8 g.), 25 cc. concd. HCl, and 1 l. 75% EtOH refluxed 1 hr., the EtOH distd. off on the steam bath, and the residue extd. with Et2O yielded 64.8 g. 10-[HO(CH2)4] deriv. (XI) of I, b0.3

178-81.degree.. XI (9.8 g.) in 65 cc. dry C6H6 treated dropwise with 3.6 g. SOCl2 and refluxed 1 hr. gave 6.6 g. crude product, b0.7 182-5.degree., which dissolved in 25 cc. boiling hexane and cooled yielded 5.2 g. 10-[Cl(CH2)4] deriv. (XII) of I. Crude XII (5.0 g.) in 10 cc. anhyd. Me2NH kept 7 days in a sealed tube at room temp., the excess Me2NH evapd., the pasty residue dissolved in 50 cc. 10% HCl, the soln. washed with Et2O, treated with excess 20% aq. KOH, and extd. with Et2O, and the ext. worked up yielded 4.2 g. 10-[Me2N(CH2)4] deriv. of I; HCl salt, m. 153-4.degree., 58% yield. Similarly were prepd. the following IV of I (same data given): Me2N(CH2)2, 84, -, 70, 245-6.degree. (from PHCl); 3-pyrrolidinopropyl, 100, -, 32, 173-4.degree. (xylene) (oxalate, m. 192-4.degree. with decompn., 100% yield). V (11.4 g.) in 100 cc. 95% EtOH treated with 2.7 g. (CO2H)2 in 10 cc. 95% EtOH yielded 14.1 g. oxalate, m. 192-4.degree. (decompn.); the oxalate in 250 cc. 95% EtOH and 100 cc. H2O treated with 3.4 cc. 30% H2O2, refluxed 17 hrs., and concd. in vacuo yielded 100% oxalate of the 5-oxide (XIII) of V, m. 229-30.degree. (decompn.). XIII treated with warm 10% aq. NaOH and extd. with CHCl3 gave XIII. Similarly was prepd. the diethylamino analog of XIII, isolated as the HCl salt dihydrate, m. 150-2.degree. (decompn.), in 36% yield. V (11.4 g.), 100 cc. 95% EtOH, and 6.8 cc. 30% H2O2 refluxed 17 hrs. and evapd. to dryness, and the residue recrystd. from EtOAc or EtCOMe-hexane gave the 5,10-dioxide (XIV) of V, m. 136-8.degree. (decompn.); on standing the colorless crystals changed to deep yellow crystals; the crude XIV in 200 cc. boiling EtCOMe, cooled, treated with excess dry HCl in Et2O, and filtered yielded 48% XIV.HCl, m. 182-4.degree. (decompn.) (glacial AcOH-Et2O). II (40 g.), 75 cc. Ac2O, and 4 cc. pyridine refluxed 4 hrs. gave 45.9 g. crude 10-Ac deriv. (XV) of II, m. 140-1.degree. (iso-PrOH). XV (30.3 g.), 33.3 g. 30% H2O2, 225 cc. glacial AcOH, and 25 cc. Ac2O refluxed 4 hrs. and cooled yielded 19.7 g. 5,5-dioxide (XVI) of II, m. 275-6.degree. (aq. Cellosolve). XVI (14.1 g.) and 2.7 g. NaNH2 in 250 cc. xylene condensed in the usual manner with 0.1 mole Me2N(CH2)3Cl, filtered, and evapd. to dryness, and the residue (1.7 g.) recrystd. from PhMe yielded 1.4 g. 10-[Me2N(CH2)3] deriv. (XVII) of XVI, m. 164-5.degree.. XVII (1.3 g.) in 25 cc. warm PhMe treated slowly with stirring with a slight excess of dry HCl in Et2O gave 1 g. XVII.HCl, m. 240-1.degree. (from MeCN-Et2O). III (9.7 g.) in 25 cc. MeCN treated with 3.28 g. (CO2H)2 in 10 cc. MeCN yielded 6 g. oxalate, m. 196-7.degree. (decompn.); the oxalate and 1.6 g. 30% H2O2 refluxed 5 hrs. in 150 cc. abs. EtOH and cooled yielded 5.5 g. oxalate (XVIII) of the 5-oxide (XIX) of III, m. 213-15.degree. (decompn.). The XVIII treated with warm 5% aq. NaOH and extd. with Et2O, and the ext. dried, and treated with dry HCl in Et2O gave 2.5 g. XIX.HCl, m. 203-5.degree.. III (15.4 g.), 150 cc. 95% EtOH, and 10 cc. 30% H2O2 refluxed 24 hrs., left 68% 5,10-dioxide trihydrate of III, very hygroscopic, m. 135-7.degree. with sintering at 80.degree. (EtCOMe). I (13.4 g.), 25 cc. AcCl, and 50 cc. Ac2O refluxed 4 hrs. and concd. in vacuo on the steam bath, the viscous residue treated with 50 cc. glacial AcOH and 17 cc. 30% H2O2, heated gradually to boiling to initiate an exothermic reaction, and refluxed 4 hrs. gave 13.5 g. 2-(trifluoromethyl)phenothiazine 5,5-dioxide, m. 268-70.degree. (95% EtOH).

IT **99889-18-6**, Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride
110332-15-5, Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide
(prepn. of)

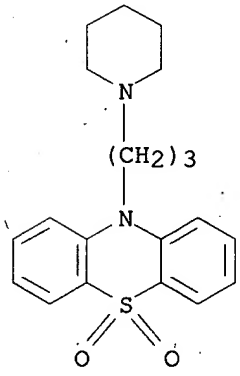
RN 99889-18-6 CAPLUS

CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX NAME)



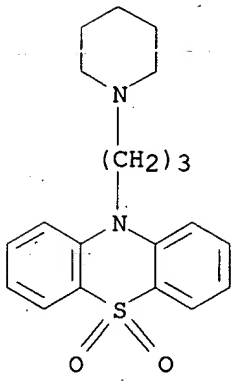
● HCl

RN 110332-15-5 CAPLUS
CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX NAME)

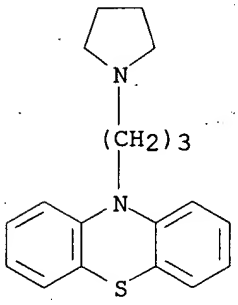


L8 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1958:1941 CAPLUS
DN 52:1941
OREF 52:389h-i,390a-e
TI Phenothiazines. VII. Basically substituted 10-alkylphenothiazine 9,9-dioxides
AU Hromatka, O.; Sauter, F.; Preininger, E.
CS Univ. Vienna
SO Monatsh. Chem. (1957), 88, 354-62
DT Journal
LA Unavailable
AB The sulfones IV heated many hrs. with secondary amines in an inert org. solvent in the presence of Cu powder as catalyst and anhyd. K2CO3 as halogen acid acceptor under strictly H2O-free conditions gave piperazine derivs., R'AN.CH2.CH2.NZ.CH2.CH2 (R' = 9,9-dioxo-10-phenothiazinyl) (V), and simple basically substituted compds., R'ANR22 (VI) (method a). Heating phenothiazine 9,9-dioxide (VII) with NaNH2 and treating the Na compd. with haloalkyl bases also gave V and VI (method b). Anhyd. piperazine (5.5 g.), 3.0 g. K2CO3, and 0.5 g. Cu bronze powder in 30 ml. refluxing xylene stirred with addn. of 2.0 g. IVb in 3.5 hrs., the mixt. stirred 4 hrs. at 150.degree. (bath temp.), the cooled mixt. decanted and the soln. dild. with Et2O, the cooled soln. filtered and the cryst. crude base washed with Et2O, the dried product taken up in N HCl and combined with the HCl washings of the org. phase, the HCl ext. washed with Et2O and filtered, the filtrate basified with 20% KOH and filtered, the washed ppt. dried over KOH at 11 mm. and crystd. from abs. alc. gave 81.4% V (A = CH2CH2, .ZETA. ≡ H), m. 150-2.degree.; di-HCl salt, m. 239-41.degree. (decompn.). Similarly, from the appropriate piperazine were prepd. the corresponding piperazinoalkylphenazine 9,9-dioxides [compd., A, Z, % yield, m.p., and m.p. (decompn.) di-HCl salt given]: Vb, CH2CH2, Me, 54.8, 132-3.degree., 240-5.degree.; Vc, CH2CH2, Et, 87.1, 136-7.degree., 240-4.degree.; Vd, CH2CH2, CH2CHMe2, 36.8, 164-6.degree., 230-4.degree.; Ve, (CH2)3, Me, 75-9, 110-12.degree., 265-8.degree.; Vf, CH2CHMe, PhCH2, 19.7, 50-70.degree., 208-11.degree.. VII (3.5 g.) and 0.9 g. NaNH refluxed 3.5 hrs. with stirring in 10 ml. PhMe, the yellow suspension treated dropwise in 5 min. with 3.0 g. 1-(.beta.-chloroethyl)-4-ethylpiperazine in PhMe, the mixt. refluxed 4 hrs. and dild. with 40 ml. C6H6, filtered hot and cooled filtrate extd. with 150 ml. 0.5N HCl, the ext. basified with 60 ml. 2N NaOH and the ppt. recrystd. from alc. gave Vc. IVb (3.0 g.), 2.5 g. HNEt2, 3.0 g. K2CO3, and 0.5 g. powd. Cu refluxed 24 hrs. in 30 ml. xylene and the cooled mixt. dild. with Et2O, the soln. treated with H2O and the layers sepd., the org. phase extd. with 0.2N HCl, the acid phase and ext. filtered and kept at room temp., the cryst. product sepd. and dried over CaCl2 at 11 mm. gave 2.6 g. HCl salt, converted by pptn. with 20% KOH and working up to give the base, 10-(.beta.-diethylaminoethyl)phenothiazine 9,9-dioxide (VIa). Similarly, by method a or b, were prepd. the basically substituted alkylphenothiazine 9,9-dioxides [compd., A, NR22, % yield, m.p., m.p. (decompn.) HCl salt, and method of prepn. given]: VIa, CH2CH2, NEt2, 67, 64.degree., 241-3.degree., a; VIb, (CH2)3, NEt2, 51, b0.01 170.degree., 234-6.degree., a; VIc, CH2CHMe, NEt2, -, 103-6.degree., -, b; VId, CH2CH2, 1-pyrrolidinyl, 20.9, 166-9.degree., 265-8.degree., -; VIe, CH2CH2, piperidino, -, 146.5-7.5.degree., 205.degree., a; VIf, (CH2)3, piperidino, 19.5, 186-9.degree., 251-6.degree., a,b.
IT **110332-15-5**, Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (prepn. of)
RN 110332-15-5 CAPLUS
CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX

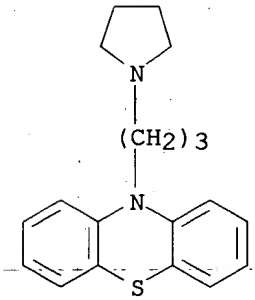
NAME)



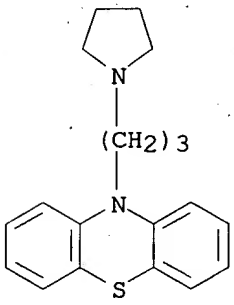
L8 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1957:26759 CAPLUS
DN 51:26759
OREF 51:5282f-g
TI Antiproliferative and antitumoral action of derivatives of phenothiazine
AU Paulesu, P.; Vargiu, L.
SO Giorn. ital. chemioterap. (1956), 3, 103-5
DT Journal
LA Unavailable
AB The substances RP 3300, 4695, 4632, and 3015 considerably inhibit the growth of the lupine root. RP 3300 is more active than colchicine. This substance and RP 4632 also inhibit the growth of grafts of Walker's carcinosarcoma.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(effect on lupine roots and neoplasms)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1957:26135 CAPLUS
DN 51:26135
OREF 51:5188c-e
TI Mechanism of the action of isonicotinic acid hydrazide, and its relation to the catalase power of microbacteria
AU Garattini, S.; Leonardi, A.; Moriguchi, Y. P.
SO Giorn. ital. chemioterap. (1956), 3, 85-103
DT Journal
LA Unavailable
AB The relations between the chemotherapeutic and the catalase power of different tuberculous and paratuberculous strains were studied. Generally, a close relation exists between the resistance to isonicotinic acid hydrazide (I) and the loss in catalase power accompanied by increased sensitivity to H2O2. I and H2O2 can sometimes show some synergism. A culture of microbacteria in the presence of gradually increasing amts. of H2O2 is capable of developing resistance to H2O2, when starting either from normal strains or from I-resistant strains. The appearance of the resistance to H2O2 is accompanied by an increase in sensitivity to I, loss of catalase power, and decrease in the formation of ketone bodies (pyruvic acid) in the culture medium, similar to the occurrence in I-resistant strains. Some inhibitors of the antituberculous activity of I, such as hemin, Na pyruvate, Na diethyldithiocarbamate (to a lesser degree), thiourea, and KCNS can counteract also the toxic action of H2O2 for a mechanism of direct inactivation.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (bactericidal action of)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1957:26134 CAPLUS
DN 51:26134
OREF 51:5188b-c
TI Antibacterial activity in vitro of derivatives of phenothiazine
AU Loddo, B.
SO Giorn. ital. chemioterap. (1956), 3, 48-52
DT Journal
LA Unavailable
AB Derivs. of phenothiazine in vitro inhibit growth of Staphylococcus aureus and Bacillus anthracis, even when blood serum is present. However, growth of gram-neg. bacteria is not affected.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
(bactericidal action of)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



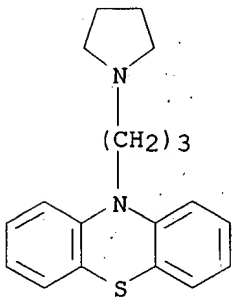
L8 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1956:36302 CAPLUS
DN 50:36302
OREF 50:7154a-c
TI Phenothiazine derivatives
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 724218		19550216	GB	

AB Phenothiazine derivs. are prepd. by treating 3-substituted diphenylamines with S at elevated temps. where the substituent is a lower alkyl group. The reaction is best effected by heating a mixt. of the 2 reactants in the presence of a small quantity of iodine as catalyst at a temp. of not less than 140.degree. and preferably at 150-90.degree.. Thus are prepd. 2-methylphenothiazine, m. 184-5.degree., and 4-methylphenothiazine, m. 114-15.degree.. Cf. preceding abstr.

IT **114383-61-8**, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride **114421-44-2**, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-
(prepn. of)

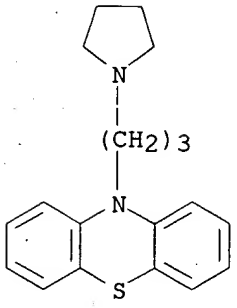
RN 114383-61-8 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)



D1—O—Me

●HCl

RN 114421-44-2 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



D1—O—Me

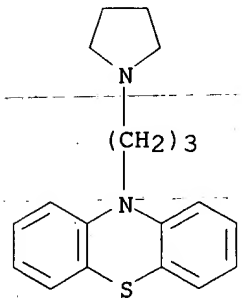
L8 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1956:36301 CAPLUS
DN 50:36301
OREF 50:7153h-i,7154a
TI Derivatives of phenothiazine
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 724217		19550216	GB	

AB x, 10-RY(CH2)3R' (I) are prepd. where x = 2 or 4, R = alkyl or alkoxy, Y = the phenothiazine nucleus (C.A. numbering), and R' = an amino group. To 10.6 g. 2-MeY, m. 187-8.degree. (from S and 3-MeC6H4CH2Ph), 40 g. xylene, and 2.53 g. 90% NaNH2 is added 8 g. Me2N(CH2)3Cl in 8 g. xylene during 1 hr. at reflux, refluxing continued 1 hr., the mixt. cooled, taken up in 150 cc. water, and slightly acidified with HCl, the org. layer decanted, the aq. layer made strongly alk. with caustic soda, and the base extd. with ether and distd. to yield 11.6 g. 2,10-MeY(CH2)3NMe2, b0.1 180-8.degree.; HCl salt, m. 194.degree.. I(x = 2, R = Me, R' = pyrrolidino) b0.15 207-12.degree.; oxalate, m. 175.degree.. The following I are also reported (x = 2 or 4, but not further specified; R and R' given): MeO, pyrrolidino, b0.1 205-7.degree. (HCl salt, m. 143-5.degree.); MeO, Me2N, b0.1 198-202.degree. (HCl salt, m. 170-95.degree.); EtO, Me2N, b0.15 212-16.degree. (oxalate, m. 157-8.degree.); BuO, Me2N, b0.15 202-5.degree. (oxalate, m. 154.degree.); PrO, Me2N, b0.15 211.degree. (oxalate, m. 178-9.degree.; MeI salt, m. 70.degree.). These compds. possess specific advantage as potentiators of general and local anesthetics and of analgesics. Cf. following abstr.

IT **114383-61-8**, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride **114421-44-2**, Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-
(prepn. of)

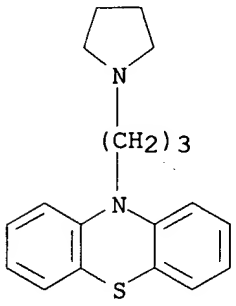
RN 114383-61-8 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)



D1—O—Me

● HCl

RN 114421-44-2 CAPLUS
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



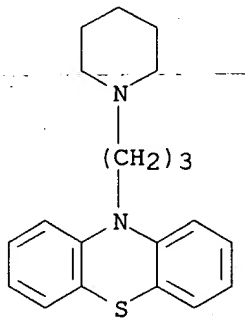
D1—O—Me

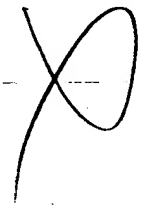
L8 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1954:60611 CAPLUS
DN 48:60611
OREF 48:10783e-h
TI (Aminoalkyl)phenothiazines
IN Dahlbom, J. R.
PA Aktiebolaget Astra Apotekarnes Kemiska Fabriker
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI SE 134622		19520226	SE	

AB Compds. of the formula RXNR'R'', where R is a 10-phenothiazine residue, X is a straight- or branched-hydrocarbon chain, and R' and R'' are both alkyl groups or 1 is alkyl and the other H, or R' and R'' together with the N atom is a heterocyclic residue, are prepd. by converting a 10-hydroxyalkyl to the corresponding haloalkyl compd., which is then treated with a mono- or dialkylamine or a heterocyclic compd. contg. at least 1 N atom in the ring. E.g., PBr3 is added to a soln. of 10-(2-hydroxypropyl)phenothiazine in CHCl3, which is then washed and evapd. to dryness; the 10-(2-bromopropyl)phenothiazine formed is heated in C6H6 under pressure with piperidine in the presence of Cu powder, and the 10-[2-(1-piperidyl)propyl]phenothiazine pptd. as the oxalate, m. 181-3.degree.; free base, m. 120-1.degree.; HCl salt, m. 255-6.degree.. The following 10-substituted phenothiazines are similarly prepd.: [2-(1-pyrrolidyl)ethyl], b0.1 142-6.degree. (HCl salt, m. 199-200.degree.); [2-(1-pyrrolidyl)propyl], b0.1 155-60.degree. (HCl salt, m. 192-3.degree.; (2-dimethylaminopropyl), b0.2 158-60.degree., m. 59-60.degree.; [2-(1-piperidyl)ethyl], b0.3-0.4 240.degree., m. 43-4.degree.; (2-dimethylaminoethyl)phenothiazine (b. 160-5.degree./0.2 mm.); [.gamma.-(1-piperidyl)propyl] (b0.5 245-8.degree.); [2-(1-morpholyl)ethyl], (b0.1 188-90.degree., m. 73-5.degree.); (2-cyclohexylaminoethyl) (b0.7 199-201.degree.); [2-(4-thiamorpholinyl)propyl]; b0.05 165-70.degree.. Also, 3-methoxy-10-(3-diethylaminopropyl)phenothiazine, b0.25 236-9.degree., and 3-methoxy-10-[2-(4-morpholinyl)propyl]phenothiazine, b0.5 220-30.degree..

IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)-
(prepn. of)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



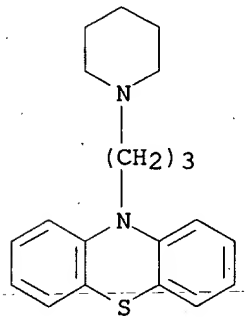


L8 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1954:60610 CAPLUS
DN 48:60610
OREF 48:10783c-d
TI (Aminoalkyl)phenothiazines
IN Dahlbom, J. R.; Sjogren, B. K. F.
PA Aktiebolaget Astra Apotekarnes Kemiska Fabriker
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SE 134621		19520226	SE	

AB Compds. of the formula RXY, in which R is a 10-phenothiazine residue, X is a straight- or branched-chain hydrocarbon residue, and Y is a 6-membered heterocyclic ring having a N atom attached to the hydrocarbon chain, are prepd. by treating phenothiazine with an aminoalkyl halide in the presence of a condensing agent. E.g., phenothiazine is heated with NaNH2 in PhMe and then with 1-(1-piperidyl)-2-chloropropane-HCl to give 10-[2-(1-piperidyl)isopropyl]phenothiazine, b0.3-0.4 190-200.degree.; HCl salt, m. 256-7.degree.. The following 10-substituted phenothiazines are similarly prepd.: [2-(1-piperidyl)ethyl], b0.3 220-30.degree. (HCl salt, m. 154-5.degree.); [2-(4-morpholinyl)ethyl], b0.1 187-90.degree., m. 74-5.degree.; [2-(4-thiamorpholinyl)isopropyl], b0.05, 165-70.degree.; [3-(1-piperidyl)propyl], b0.5 230-40.degree.. Also, 3-methoxy-10-[2-(4-morpholinyl)isopropyl]phenothiazine, b0.5 220-30.degree..

IT **3733-38-8**, Phenothiazine, 10-(3-piperidinopropyl)-
(prepn. of)
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



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L4              2 S L3 SSS SAM
L5                STRUCTURE UPLOADED
L6              1 S L5 SSS SAM
L7             17 S L5 SSS FUL

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L8             38 S L7

     FILE 'CAOLD' ENTERED AT 16:00:40 ON 29 MAY 2003

=> s 17
L9             22 L7

=> d 19 1-22 bib,hitstr
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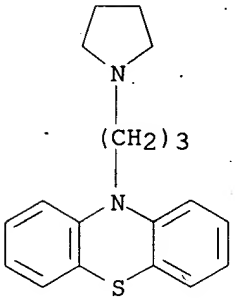
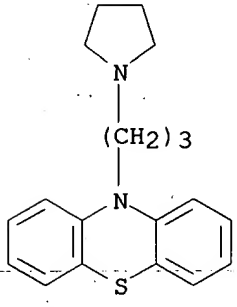
L9 ANSWER 1 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA63:12153h CAOLD
TI inhibition of sickling by phenothiazines-comparison of derivs.
AU Lewis, Roger A.; Gyang, F. N.
IT **2622-25-5 98845-25-1**
RN 2622-25-5 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, monohydrochloride (8CI) (CA INDEX NAME)



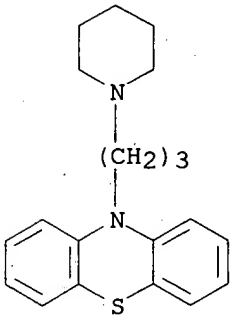
● HCl

RN 98845-25-1 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)

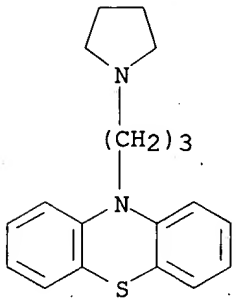


●x HCl

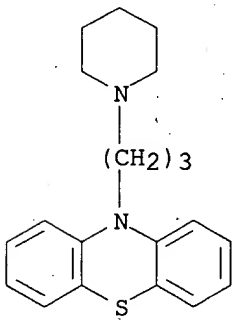
L9 ANSWER 2 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA61:9924f CAOLD
TI intensity and duration of central nervous action in 2-acetylated phenothiazines and phenoxazines
AU Ribbentrop, Annemarie; Schaumann, W.
IT **3733-38-8**
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



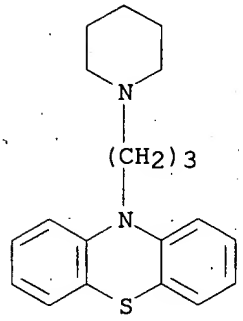
L9 ANSWER 3 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA60:2219g CAOLD
TI antiarrhythmic action of phenothiazine derivs. - (III) relation between chem. structure and antiarrhythmic action and side effects as well as clin. results
AU Yoshitani, Hideichi
IT **3733-37-7** **3733-38-8**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

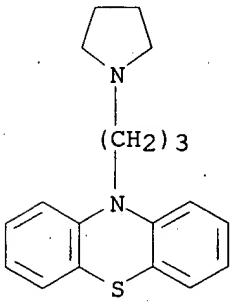


L9 ANSWER 4 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA59:8751f CAOLD
TI 1,2,5-thiadiazole
AU Wen, Richard Y.
IT **99889-18-6**
RN 99889-18-6 CAOLD
CN Phenothiazine, 10-(3-piperidinopropyl)-, hydrochloride (7CI) (CA INDEX NAME)

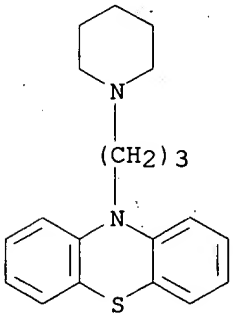


● HCl

L9 ANSWER 5 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA58:9535g CAOLD
TI effect of alkylating agents on the excretion of taurine in the urine
AU Schuberth, Jan; Sorbo, B.
IT **3733-37-7** **3733-38-8**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



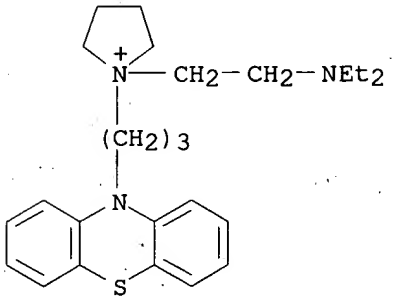
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



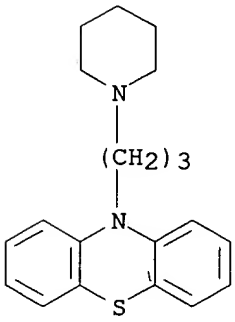
L9 ANSWER 6 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA57:15122i CAOLD
TI phenothiazine derivs.
PA Rhone-Poulenc S. A.
DT Patent

PATENT NO.	KIND	DATE
PI FR 73105		

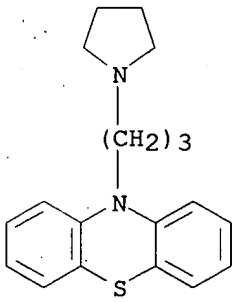
IT **102288-48-2**
RN 102288-48-2 CAOLD
CN 1-[2-(Diethylamino)ethyl]-1-(3-phenothiazin-10-ylpropyl)pyrrolidinium chloride (6CI, 7CI) (CA INDEX NAME)



L9 ANSWER 7 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA57:11788g CAOLD
TI antiarrhythmic action of phenothiazine derivs.
AU Sato, Tatsuo; Tanabe, Y.
IT **3733-38-8 98845-25-1**
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

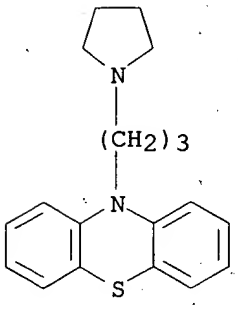


RN 98845-25-1 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)

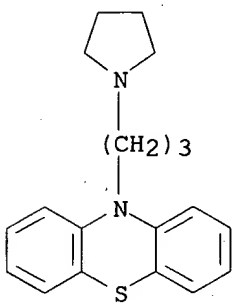


●x HCl

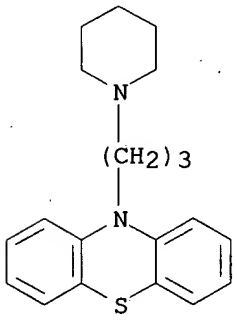
L9 ANSWER 8 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA56:7941d CAOLD
TI action of derivs. of phenothiazine on the multiplication of plant and animal cells and microorganisms
AU Loddo, Bernardo; Zanda, G. E.
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



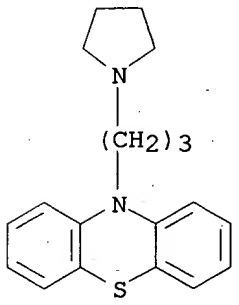
L9 ANSWER 9 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:19932f CAOLD
TI phenothiazine derivs. - (XVI) prepn. of amino substituted phenothiazines by reductive amination with LiAlH4
AU Hromatka, Otto; Proestler, G.; Sauter, F.
IT **3733-37-7** **3733-38-8**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



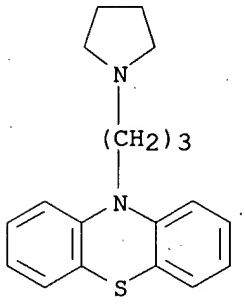
RN 3733-38-8 CAOLD
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L9 ANSWER 10 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:15743b CAOLD
TI decrease of urinary elimination of taurine after prolonged treatment with isoniazid
AU Marcucci, F.; Mussini, E.
TI series of alkyl-substituted amine derivs. of dibenzo-p-thiazine - (VI) action on the brain protein picture
AU Tonini, Giuseppe; Missere, G.; Murari, G.
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



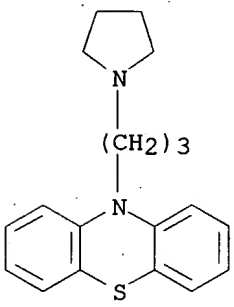
L9 ANSWER 11 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:15743a CAOLD
TI series of alkyl-substituted amine derivs. of dibenzo-p-thiazine - (V) action of prolonged treatment on the glycoprotein of the serum
AU Missere, G.; Campanini, T.; Tonini, G.
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



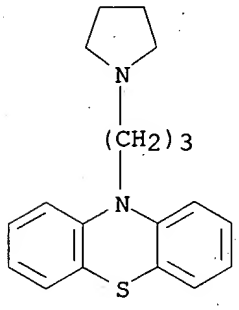
L9 ANSWER 12 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA55:8437g CAOLD
TI 10-(pyrrolidinoalkyl)phenothiazines
PA Societe des usines chimiques Rhone-Poulenc
DT Patent

PATENT NO.	KIND	DATE
FR 1167631		

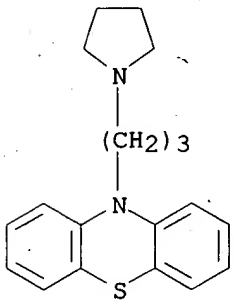
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L9 ANSWER 13 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA54:21651c CAOLD
TI photodynamic action of phenothiazine derivs.
AU Prino, Giuseppe; Santamaria, L.
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



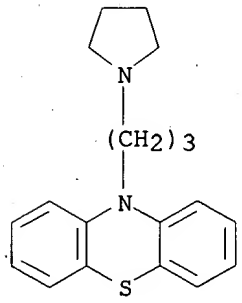
L9 ANSWER 14 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:20552h CAOLD
TI influence of 3-methylchromone on the central nervous system
AU Prino, Giuseppe
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L9 ANSWER 15 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:11417g CAOLD
TI aminosulfenyl halides
AU Freytag, Helmut; Lober, F.
DT Patent
TI phenothiazine derivs.
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
TI phenothiazines
AU Jacob, Robert M.; Robert J. G.
DT Patent

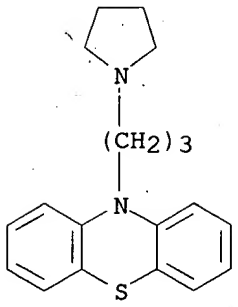
PATENT NO.	KIND	DATE
DE 940829		
DE 965968		

IT **113929-04-7 114383-61-8 114421-44-2 122871-96-9**
RN 113929-04-7 CAOLD
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)



D1—Me

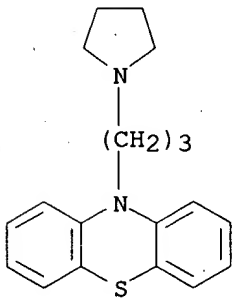
RN 114383-61-8 CAOLD
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI) (CA INDEX NAME)



D1—O—Me

● HCl

RN 114421-44-2 CAOLD
CN Phenothiazine, 2(or 4)-methoxy-10-[3-(1-pyrrolidinyl)propyl]- (6CI) (CA INDEX NAME)

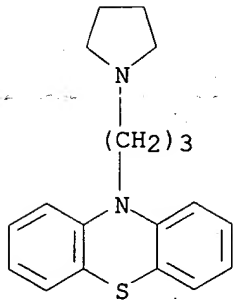


D1—O—Me

RN 122871-96-9 CAOLD
CN Phenothiazine, 2(or 4)-methyl-10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

CM 1

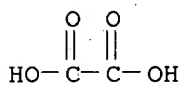
CRN 113929-04-7
CMF C20 H24 N2 S
CCI IDS



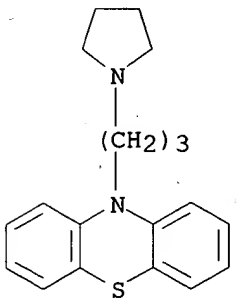
D1—Me

CM 2

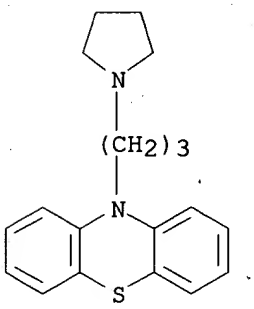
CRN 144-62-7
CMF C2 H2 O4



L9 ANSWER 16 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:7404f CAOLD
TI effect of tranquilizing drugs on enzyme systems
AU Smith, Jackson A.; Carver, M. J.; Helper, E. W.
TI use of dyes in therapy and the dangers to human health
AU Truhaut, Rene
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



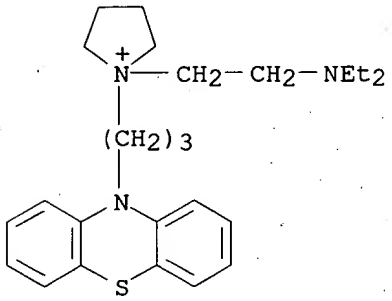
L9 ANSWER 17 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA53:3503a CAOLD
TI effect of tranquilizing agents and related compds. on the succinoxidase system
AU Helper, Eleanor W.; Carver, M. J.; Jacobi, H. P.; Smith, J. A.
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



L9 ANSWER 18 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA52:2934g CAOLD
TI phenothiazine derivs.
PA Societe des usines chimiques Rhone-Poulenc
DT Patent

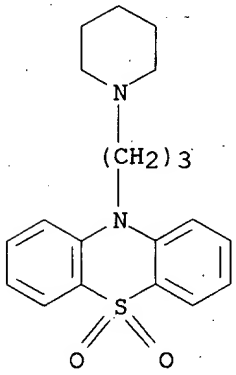
PATENT NO.	KIND	DATE
GB 782431		

IT **102288-48-2**
RN 102288-48-2 CAOLD
CN 1-[2-(Diethylamino)ethyl]-1-(3-phenothiazin-10-ylpropyl)pyrrolidinium chloride (6CI, 7CI) (CA INDEX NAME)

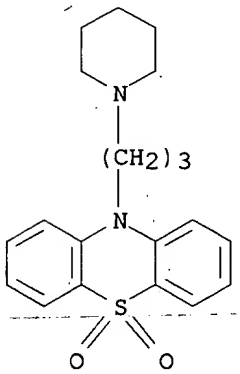


● Cl^-

L9 ANSWER 19 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA52:390e CAOLD
TI 10-(3-dimethylaminopropyl)-2-(trifluoromethyl)phenothiazine HCl and related compds. - (I)
AU Yale, Harry L.; Sowinski, F.; Bernstein, J.
IT **110332-15-5 112625-50-0**
RN 110332-15-5 CAOLD
CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide (6CI) (CA INDEX NAME)

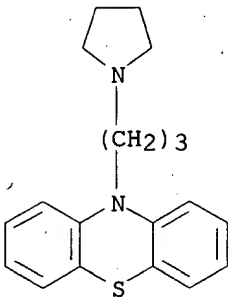


RN 112625-50-0 CAOLD
CN Phenothiazine, 10-(3-piperidinopropyl)-, 5,5-dioxide, hydrochloride (6CI) (CA INDEX NAME)

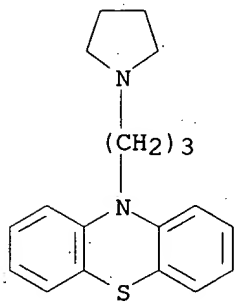


● HCl

L9 ANSWER 20 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA51:5282g CAOLD
TI antiproliferative and antitumoral action of derivs. of phenothiazine
AU Paulesu, F.; Vargiu, L.
TI influence of estrogens and progestrogens on the action potential and the stimulation of the uterus
AU Jung, Hugo
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



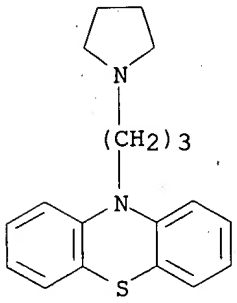
L9 ANSWER 21 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA51:5188c CAOLD
TI action of isonicotinic acid hydrazide, and its relation to the catalase power of microbacteria
AU Garattini, Silvio; Leonardi, A.; Moriguchi, Y. P.
TI antibacterial activity of derivs. of phenothiazine
AU Loddo, Bernardo
IT **3733-37-7**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



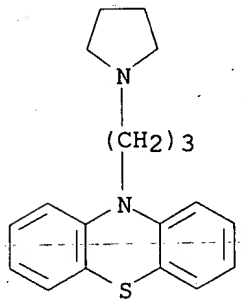
L9 ANSWER 22 OF 22 CAOLD COPYRIGHT 2003 ACS
AN CA51:1300e CAOLD
TI phenothiazine derivs.
PA Societe des usines chimiques Rhone-Poulenc
DT Patent

PATENT NO.	KIND	DATE
GB 745069		

PI GB 745069
IT **3733-37-7 98845-25-1 111065-81-7 115079-94-2**
RN 3733-37-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 98845-25-1 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)

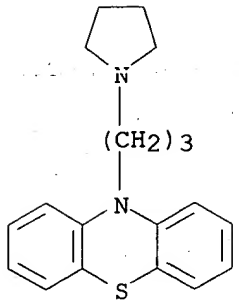


●x HCl

RN 111065-81-7 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, methiodide (6CI) (CA INDEX NAME)

CM 1

CRN 3733-37-7
CMF C19 H22 N2 S



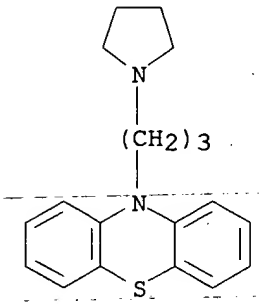
CM 2

CRN 74-88-4
CMF C H3 I

RN 115079-94-2 CAOLD
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, oxalate (6CI) (CA INDEX NAME)

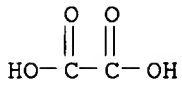
CM 1

CRN 3733-37-7
CMF C19 H22 N2 S

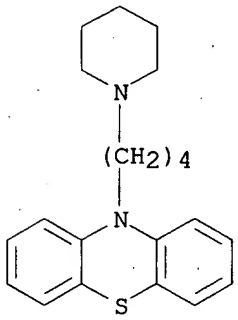


CM 2

CRN 144-62-7
CMF C2 H2 O4



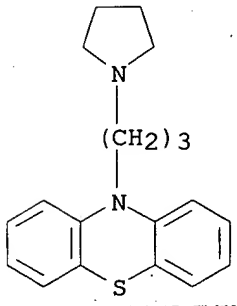
L8 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1999:512075 CAPLUS
DN 131:286423
TI One-pot synthesis of pharmacologically active diamines via rhodium-catalyzed carbonylative hydroaminomethylation of heterocyclic allylic amines
AU Rische, Thorsten; Muller, Kai-Sven; Eilbracht, Peter
CS Organische Chemie I (FB 3), Universitat Dortmund, Dortmund, D-44221, Germany
SO Tetrahedron (1999), 55(32), 9801-9816
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 131:286423
AB Pharmacol. active derivs. of phenothiazine, iminodibenzyl, carbazole and pyrazole are prepd. with high yields and chemoselectivity by the reaction of the corresponding N-allylic or N-methallylic compds., primary or secondary amines, carbon monoxide and hydrogen in the presence of [Rh(cod)Cl]2 as catalyst via a one pot hydroformylation-amine condensation-redn. sequence.
IT **246041-11-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(one-pot synthesis of diamines via rhodium-catalyzed carbonylative hydroaminomethylation of heterocyclic allylic amines)
RN 246041-11-2 CAPLUS
CN 10H-Phenothiazine, 10-[4-(1-piperidinyl)butyl]- (9CI) (CA INDEX NAME)



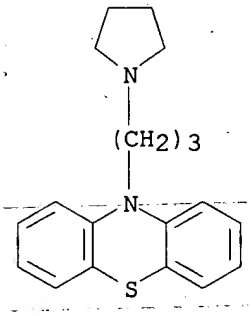
no utility stated!

RE.CNT 106 THERE ARE 106 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1972:547761 CAPLUS
DN 77:147761
TI Stability of some phenothiazine free radicals
AU Levy, Louis; Tozer, Thomas N.; Tuck, L. Dallas; Loveland, Donald B.
CS Public Health Serv. Hosp., San Francisco, CA, USA
SO Journal of Medicinal Chemistry (1972), 15(9), 898-905
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
AB The stability of 57 10-alkylphenothiazine free radicals in H_2SO_4 soln. depended on the nature of the substituents at both the 2 and 10 positions, and did not correlate with the usual antipsychotic doses of the phenothiazine tranquilizers. The influence on radical stability of the 2-substituent was predictable by the Hammett meta-substituent const. At position 10, a branched-chain aliphatic moiety yielded a more unstable radical than did a straight-chain moiety, and stability increased with increasing no. of C atoms between N10 of the phenothiazine nucleus and the N in the side chain. The most stable radical obsd. was derived from 10-[4-(dimethylamino)butyl]phenothiazine (I) [33326-77-1], and the least stable from 2-bromo-10-[2-(dimethylamino)propyl]phenothiazine (II) [1757-73-9] and 2-propionyl-10-[2-(dimethylamino)propyl]phenothiazine (III) [362-29-8].
IT **38878-76-1**
RL: PRP (Properties)
(stability of, psychotropic activity in relation to)
RN 38878-76-1 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, radical ion(1+) (9CI) (CA INDEX NAME)

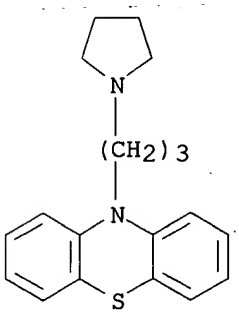


L8 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1965:465949 CAPLUS
DN 63:65949
OREF 63:12153h,12154a-b
TI Inhibition of sickling by phenothiazines: comparison of derivatives
AU Lewis, R.A.; Gyang, F. N.
CS Ghana Acad. Sci., Accra
SO Archives Internationales de Pharmacodynamie et de Therapie (1965), 153(1), 158-71
CODEN: AIPTAK; ISSN: 0003-9780
DT Journal
LA English
AB Fifty-three phenothiazine derivs. have been screened for their ability to inhibit glucose 6-phosphate dehydrogenase (I) of erythrocytes and for their ability to inhibit sickling of red blood cells. A good degree of correlation was found between the ability to inhibit I and to prevent sickling. Of the 13 compds. most active against I and of the 22 compds. most active against sickling, 11 fell into both categories. This relation was not correlated with the ability to tranquilize. In both respects, the most active compd. was demethylchlorpromazine (II). The most active compds. had the ring structure of phenothiazine or thioxanthene with a propyl side chain at C-10 with the terminal C radical bearing a dimethylamino N. Restricted movement of the side chain caused by incorporation of these methyl groups into ring structures did not reduce activity. The secondary amine, II, was more active than the tertiary amines formed by dimethyl or diethyl substitution on the amino N. The effect of substitutions at C-2 was variable.
IT **98845-25-1**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride
(effect on erythrocyte sickling and glucose-6-dehydrogenase)
RN 98845-25-1 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-, hydrochloride (6CI, 7CI) (CA INDEX NAME)

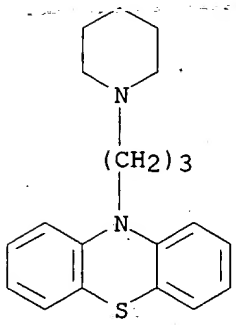


●x HCl

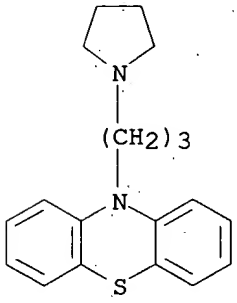
L8 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1964:12388 CAPLUS
DN 60:12388
OREF 60:2219g-h,2220a-b
TI Antiarrhythmic action of phenothiazine derivatives. III. The relation between chemical structure and antiarrhythmic action and side effects as well as clinical results
AU Yoshitani, Hideichi
CS Hokkaido Univ., Sapporo
SO Japan. Circulation J. (1963), 27(6), 487-98
DT Journal
LA Unavailable
AB cf. CA 59, 9218h. The antiarrhythmic action of 23 phenothiazine (I) derivs., on extrasystoles produced in dogs of about 10 kg. wt. by intravenous injection of Na thiopental (0.025 g./kg.) and 2% BaCl2 (1.5 mg./kg.), were compared using chlorpromazine (II) as a standard (0.01-10.0 mg./kg. used). 10-[3-(1-Pyrrolidinyl)propyl]phenothiazine-HCl (4695 R.P.)(III) was more effective than, promazine and acepromazine were equally effective as, 3-cyano-10-(3-dimethylamino-2-methylpropyl)phenothiazine (7204 R.P.), trimeprazine, methotrimeprazine, 3-chloro-10-(3-diethylaminopropyl)phenothiazine (4909 R.P.), perphenazine, prochlorperazine, and chloropromazine S-oxide were less effective than, and phenethazine, 10-(2-dimethylamino-1-methylethyl)phenothiazine (4460 R.P.), diethazine, proquamazine, 10-(2,3-dipiperidinopropyl)phenothazine (7145 R.P.), 10-(3-dimethylamino-2-methylpropyl)phenothiazine (3300 R.P.), promethazine, and thioridazine were much less effective than II. It seemed that changes in the length and branching of the C chain at position 10 (the N atom) of I corresponded to changes in potency of antiarrhythmic action but changes in the group substituted at position 3 seemed, in general, to have no effect. Changing the dimethylamino group of II to a pyrrolidinyl group greatly enhanced the antiarrhythmic action but neither a piperazine nor a piperidine group showed any effect in this position. Side effects such as drowsiness and toxicity seemed unrelated to antiarrhythmic potency, though, in general, when antiarrhythmic action was weak these side effects were also weak. However, the strongly antiarrhythmic III showed little toxicity or sedative action. When II was used in conjunction with procaine amide or with quinidine, antiarrhythmic potency was enhanced.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
(heart arrhythmia response to)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



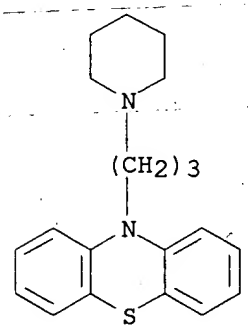
RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1963:55584 CAPLUS
DN 58:55584
OREF 58:9535f-g
TI Alteration of tissue pyridine nucleotide levels and the central nervous system
AU Burton, Robert Main
CS Washington Univ. School of Med., St. Louis, MO
SO Inhibition Nervous System Gamma-Aminobutyric Acid, Proc. Intern. Symp., Duarte, Calif. (1960), 1959, 249-59
DT Journal
LA Unavailable
AB Chem. agents are able to elevate or depress diphosphopyridine nucleotide (I) levels of. animal liver and brain. These agents also affect the central nervous system. Nicotinamide, which elevates central nervous system I, protects against the toxic action of isopropylphenylhydrazide and of 3-acetylpyridine. Tranquilizing agents are able to maintain nicotinamide-induced elevation of I.
IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]-
3733-38-8, Phenothiazine, 10-(3-piperidinopropyl)-
(effect on codehydrogenase I in tissue, central nervous system and)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



RN 3733-38-8 CAPLUS
CN 10H-Phenothiazine, 10-[3-(1-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

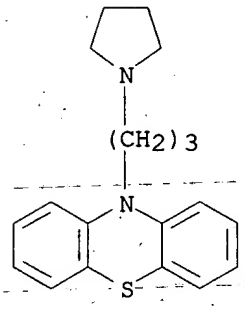


L8 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2003 ACS
AN 1957:5875 CAPLUS
DN 51:5875
OREF 51:1300d-g
TI Phenothiazine derivatives
PA Societe des usines chimiques Rhone-Poulenc
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 745069		19560222	GB	

AB 3-Pyrrolidino-1-chloropropane 23.6 g. in xylene 50 cc. was added over 0.5 hr. while stirring to phenothiazine 26.5 g., 85% NaNH2 7.8 g., and xylene 100 cc. at 110.degree., the heating continued 2 hrs. at 140.degree., the mixt. cooled, H2O 200 cc. added, then made acid to methyl orange with HCl (d. 1.16, 25 cc.), the xylene layer sepd. the aq. layer extd. with Et2O 100 cc., the Et2O decanted, the aq. layer made alk. to thymolphthalein with NaOH (d. 1.33, 25 cc.), the base extd. with Et2O 3 .times. 100 cc. to give 35 g. 10-(3'-pyrrolidinopropyl)phenothiazine (I), b0.45 210-20.degree.; oxalate, m. 198.degree.; MeI salt, m. 196-8.degree.; HCl salt, m. 158.degree.. Heating 2-bromo-2'-aminodiphenyl sulfide (II) with 1-chloro-3-pyrrolidinopropane and NaNH2 and isolating as above gave 2-bromo-2'-(3''-pyrrolidinopropyl)aminodiphenyl sulfide b0.4 214-30.degree.. II was obtained from the corresponding NO2 compd., which was prepd. from 2-BrC6H4SH and 2-ClC6H4NO2. I is valuable as a pharmacodynamic agent, of which its anti shock and hypertensive activities are most important, it also enhances or prolongs the effects of anaesthetics and analgesics.

IT **3733-37-7**, Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (and methiodide and other derivs.)
RN 3733-37-7 CAPLUS
CN Phenothiazine, 10-[3-(1-pyrrolidinyl)propyl]- (6CI, 7CI, 8CI) (CA INDEX NAME)



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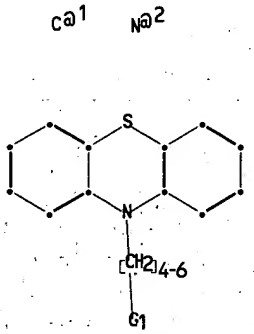
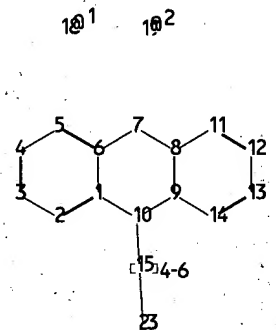
364





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15 23
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14
ring/chain nodes :
18 19
chain bonds :
10-15 15-23
ring bonds :
1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
exact/norm bonds :
1-10 6-7 7-8 9-10 15-23
exact bonds :
10-15
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14
isolated ring systems :
containing 1 :

G1:[*1],[*2]

Hydrogen count :
2:>= minimum 1 3:>= minimum 1 4:>= minimum 1 5:>= minimum 1 11:>= minimum 1
12:>= minimum 1 13:>= minimum 1 14:>= minimum 1
Connectivity :
7:2 X maximum RC ring/chain
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:CLASS 18:CLASS 19:CLASS 23:CLASS

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=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end


=> screen 2016 OR  2026 OR  2039 OR  2040 OR  2045

L1    SCREEN CREATED

=>
Uploading C:\STNEXP4\QUERIES\09849400 (Patel).str

L2      STRUCTURE UPLOADED

=> que L2 NOT L1

L3   QUE L2 NOT L1

=> d l3
L3 HAS NO ANSWERS
L1               SCR 2016 OR 2026 OR 2039 OR 2040 OR 2045
L2               STR
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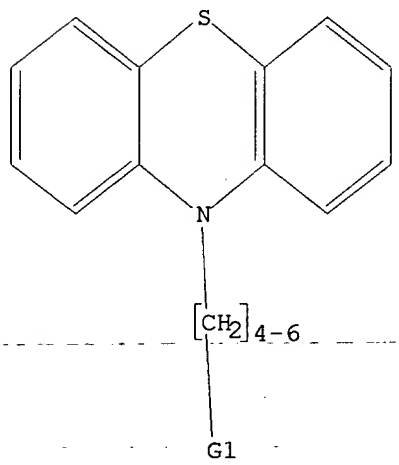


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G1 [@1],[@2]


Structure attributes must be viewed using STN Express query preparation.
L3               QUE  L2 NOT L1


=> s l3 sss sam
SAMPLE SEARCH INITIATED 13:27:35 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     79 TO ITERATE
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